

DOCUMENT RESUME

ED 210 679

CS 206 655

TITLE Language Use, Language Ability, and Language Development: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," July through December 1981 (Vol. 42 Nos. 1 through 6).

INSTITUTION ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.

PUB DATE 81

NOTE 24p.: Pages may be marginally legible.

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Adult Education; Annotated Bibliographies; Cognitive Processes; *Doctoral Dissertations; Elementary Secondary Education; *English; Error Analysis (Language); Grammar; Higher Education; *Language Acquisition; Language Handicaps; *Language Research; Language Skills; *Language Usage; Structural Analysis (Linguistics); *Vocabulary Development; Word Recognition; Writing Skills

ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 49 titles deal with a variety of topics, including the following: (1) the relation of cognitive ability and receptive language ability in primary school children; (2) verbal cognition; (3) contextual methods of teaching vocabulary in grade 11; (4) the efficacy of letter cloze as a perceptual organizing technique; (5) verbal plurality and aspect; (6) structure building operations and word order; (7) individual differences in acquisition and use of English derivational morphology; (8) children's humorous language; (9) the evolution of brain lateralization and its implications for language; (10) phrase structure, subcategorization, and transformations in the English verb phrase; (11) categorization in phonology; (12) children's questions and the discovery of interrogative syntax; (13) case relations in generative grammar; (14) the influence of linguistic context on word recognition accuracy and miscues; (15) sentence bridging and reading proficiency; (16) the effects of set expectations on lexical access; (17) teaching linguistics to the adolescent student; and (18) grammars for the recognition of natural language. (FI)

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**RELATION OF COGNITIVE ABILITY AND RECEPTIVE
LANGUAGE ABILITY IN CHILDREN OF PRIMARY SCHOOL
AGE** Order No. 8122236

BAYLESS, JUANITA CAROL, Ed.D. Northern Illinois University, 1981.
152pp.

The present study drew upon information contributed in previous studies to systematically investigate the effects of cognitive abilities, statement voice, and question voice upon primary school age children's abilities to give correct responses to questions. The main investigation of the study was concerned with the possibility that an interaction of cognitive abilities, statement voice, and question voice might affect children's abilities to respond correctly. In addition to the possible interactions, the main effects of the three variables were examined. The examination of the main effects was similar to the procedures utilized in previous studies. Unlike previous studies, interactions between all three variables were also examined.

Measures of cognitive abilities (Concept Assessment Kit-Conservation, Form A) and of correct responses to questions about statements were taken for 87 children. Cognitive ability was classified as conserver, transitional and nonconserver as proposed by Borucki (1976). The conditions of measured receptive language ability were: (1) active voice statement-active voice question, (2) active voice statement-passive voice question, (3) passive voice statement-active voice question, and (4) passive voice statement-passive voice question.

The analysis of the data in this study revealed main effects confirmed in previous studies regarding cognitive ability, statement voice, and question voice, but this support did not hold in the analysis of interaction. Cognitive abilities were related to the overall correct responses, but did not interact significantly with statement voice and/or question voice. Correct responses for active voice statements were higher than for passive voice statements for both active and passive voice questions, but became lower at the passive voice question level. As a main effect, question voice was not significant. There was a disordinal interaction of question voice through statement voice. The investigation revealed a significant hierarchy of difficulty within the four conditions of statement and question voice forms. The order of difficulty was: (1) active voice statement-active voice question pairs, (2) active voice statement-passive voice question pairs, (3) passive voice statement-passive voice question pairs, and (4) passive voice statement-active voice question pairs.

The present study was based upon the premise that a twofold comprehension task underlies children's responses to questions. To respond to a question about information that has been presented, the children must first comprehend the information and then the question. It seemed reasonable to expect that cognitive and/or language development factors which have been found to influence children's comprehension of statement voice forms might also influence children's abilities to respond to question voice forms. The present study indicated that primary school age children may be inadvertently restricted in their abilities to demonstrate comprehension when a questioning process is utilized. The present study confirmed a need for better understanding of primary school age children's receptive language abilities in relation to their cognitive abilities.

THEORY OF VERBAL COGNITION Order No. 8112964

BHATT, VINAYAKA PARAMESHWARA, Ph.D. University of California, Berkeley, 1980. 177pp.

The present work offers a detailed study of the theory of verbal cognition, *śabdabodha*, and related problems based upon the *Vyutpattivāda* of Gadādhara Paṇḍita.

From the very beginning of its history, the philosophers of the Nyāya School showed a great deal of interest in the theory of words and meaning. However, in the modern period of the Nyāya School, the new Logicians (*Navya-Naiḍyikas*) developed a very systematic theory of the verbal statement, *śabda*, and its understanding, *bodha*. They tried to answer the questions: "How do words convey meaning?" and "What are the steps in apprehending the meanings from a given statement?" The New Logicians analysed verbal statements into their meaningful parts such as roots, verbal endings, nominal stem, inflectional endings, etc., and they held that each part refers to a particular meaning. According to them, verbal cognition is the apprehension of the semantic relations between the referents of individual words.

Metaphysics, logic and epistemology can be said to constitute the subject matter of *Navya-Nyāya* philosophy. Therefore, the New Logicians

also occupy a distinct position in the theory of verbal cognition, for the theory of verbal cognition is an important aspect of the epistemology of *Navya-Nyāya* philosophy. Eminent New Logicians such as Gaṅgeśa, Raghunātha, Jagadīśa and Gadādhara wrote important books on epistemology in general and verbal cognition in particular. Thus an understanding of the theory of verbal cognition is essential to an understanding of the *Navya-Nyāya* philosophy.

The theory of verbal cognition was utilized in judging the validity of a statement (*śabda*). A verbal statement is valid, *pramāṇa*, if the verbal cognition, rising from it, is valid and logically intelligible. The theory was so influential that other philosophical schools of India accepted it as part of their system. However, the other schools, particularly the Grammarians (*Vaidikarāṇas*) and the Ritualists (*Mīmāṃsakas*) adopted it with several modifications and within a different theoretical framework. These theoretical differences are often the subject of argument and disagreement in the history of these philosophical traditions. In order to understand these, we shall discuss the theories of verbal cognition according to the *Nyāya*, *Vaidikarāṇa* and *Mīmāṃsā* in Part I.

The verbal cognition of the New Logicians is an analytical understanding of semantical and epistemological properties such as subject, object, action, etc. The New Logicians analyse the subject as the possessor of the action, the object as the possessor of the effect, and the action as the cause of the effect. Since the analytical understanding of these properties is the key to the understanding of verbal cognition, we shall provide an analysis and definition of these properties in Part II.

To substantiate the historical background of the problem of verbal cognition, we shall give a translation of selected portions of the first two chapters of the *Vyutpattivāda* in Part III.

The present work addresses primarily students and scholars of *Navya-Nyāya* logic and secondarily those of Indian philosophy.

**A STUDY OF VERB PHRASES IN THE WRITING OF SIXTH
GRADE CHILDREN TAUGHT GENERATIVE-
TRANSFORMATIONAL GRAMMAR COMPARED WITH SIXTH
GRADE CHILDREN TAUGHT TRADITIONAL GRAMMAR**

Order No. 8122000

BOISVERT, LOUIS WALTER, JR., Ph.D. Ball State University, 1981.
127pp. Chairperson: Dr. Irma F. Gale

The purpose of this research was to analyze the status of the English auxiliary system in the verb phrases of the writing of a selected group of sixth grade children to determine whether there would be measurable differences between the incorporation and comprehension of verb phrase expansions of children taught generative-transformational theory and those taught traditional theory.

The research was designed to answer four questions relevant to the effects of the experimental treatment on the writing productivity of the subjects in the study. I collected writing samples from the subjects for pre-test and post-test evaluation. The first 100 verb forms collected from the subjects' pre-test and post-test writing were analyzed for changes in the subjects' use of expanded verb forms. The purpose of this analysis was to determine if the experimental subjects utilized fewer simple verb forms and more expanded verb forms in their post-test sampling.

The sampling consisted of fifteen Caucasians and six Blacks in each group for a total of forty-two subjects. The subjects were students attending the Henry Barnard School which serves as the laboratory setting for Rhode Island College. The groups were equalized in terms of I.Q. and language achievement. While I collected the post-test data, the experimental subjects studied generative-transformational methods of verb phrase expansions and the control subjects studied traditional methods of verb phrase expansions.

The data were analyzed by means of a two-way factorial analysis which computed the statistical differences for the experimental (Black-Caucasian)/control (Black-Caucasian), pre-test, post-test variables. In order to determine statistically significant differences for the group, t-scores and f-scores were analyzed. The following conclusions were drawn from the statistical findings.

Although none of the statistical summaries were significant at the .05 level, the experimental subjects showed more gains in their use of expanded verb forms in their post-test writing than the control group showed. Among the experimental subjects who made gains in their use of expanded verb forms, the Black population made the greatest gains. The most complex verb forms did not appear in the post-test sampling of either group. These complex forms seemed to be beyond the written linguistic productivity of sixth-grade children.

CONTEXTUAL METHODS OF TEACHING VOCABULARY IN GRADE ELEVEN

Order No. 8126682

BRASSARD, ESTHER LONG, Ed.D. *Boston University School of Education*, 1981. 539pp. Major Professor: Dr. Thomas E. Culliton, Jr.

The problem of the study was to investigate: (1) differences in pre, post, and delayed vocabulary scores of eleventh grade students who were exposed to a six-week program of vocabulary lessons which provided direct teaching of 240 specific vocabulary words via contextual analysis; (2) differences in pre, post, and delayed vocabulary scores of eleventh grade students who received the vocabulary lessons through an aural assistance or silent reading method for three weeks of the program; (3) differences in Review Test scores of students exposed to an aural assistance or silent reading method for each of the six weeks of the program; (4) differences in total Review Test scores of students exposed to an odd or even sequential pattern of aural assistance for weekly vocabulary lessons; (5) correlation between measures of specific vocabulary, reading performance, listening performance, academic level, intelligence, and sex; (6) the combined effect of selected variables on Total Review Vocabulary of students involved in the experiment; (7) differences between total Review Test scores obtained by eleventh grade students who received aural assistance during weeks 1, 3, and 5 of the experiment vs. scores obtained by students receiving aural assistance during weeks 2, 4, and 6 of experiment; (8) differences in pre, post and delayed vocabulary scores of eleventh grade students over two succeeding six-week periods; (9) differences in pre, post and delayed vocabulary scores of eleventh grade students who received an ABA pattern of parallel test forms over two succeeding six-week periods vs. scores obtained by students who received a BAB pattern of vocabulary test forms over the same period of time.

The sample for the study consisted of 182 eleventh grade students, 80 males and 122 females, who attended a large suburban public high school. The mean I.Q. of students in the sample was 106.39 with a standard deviation of 10.04 obtained in June of 1976. The study spanned a 14 week period during the months of February through May of 1976. During the first week of the study, students were administered a series of pretest measures, followed by a six-week vocabulary development program. Students were administered a series of posttests during the week following the program. Six weeks after the completion of posttest, students were given a delayed vocabulary measure.

During the six-week vocabulary program, students received 24 lessons, 4 lessons each week, which provided direct teaching of 240 specific vocabulary words via contextual analysis. Over half of these words were judged as unfamiliar according to criteria developed by Eichholz, Dale, and O'Rourke.

Pretest measures included Form 2A of the *Cooperative English Reading Comprehension Test*, Form BM of the *Brown-Carlson Listening Comprehension Test*, and two parallel forms of a multiple-choice Vocabulary Test developed by the author. Posttest measures included alternate forms of the tests listed above. Students also received the pretest Vocabulary Test form as a delayed measure.

The major conclusions of the study were: (1) Pre-posttesting of specific vocabulary taught during the experiment indicated that eleventh grade students realized a significant increase in scores. Differences between pre and delayed vocabulary scores were also significant. Differences between post and delayed vocabulary scores were not significant. (2) Total specific vocabulary knowledge of eleventh grade students acquired through an aural assistance vs. silent reading method did not differ significantly. The sequencing of aural assistance methods throughout the six weeks of the experiment appeared to significantly influence posttest scores. (3) Except for sex, all correlations of specific vocabulary measures with reading and most listening measures were positive and significant. Correlations of all measures of specific vocabulary with academic level and intelligence were significant. (4) Intelligence and Academic Level were two principal determinants of variance in total specific vocabulary knowledge. (5) The combined interaction of methods (aural vs. silent) with sequence of methods had a significant influence on total specific vocabulary of eleventh grade students. (6) The sequencing of pre, post, and delayed Vocabulary Test forms influenced the non-linear trend of scores.

A COMPARISON OF NORMAL AND ARTICULATION-IMPAIRED CHILDREN'S PERFORMANCE ON FOUR TASKS OF PHONEMIC AWARENESS

Order No. 8112586

CHABON, ROCHELLE STEINBERG, Ph.D. *University of Pittsburgh*, 1980. 179pp.

The performance of thirty-two normal and thirty-two articulation impaired (A-I) children was compared on four tasks of phonemic awareness: auditory analysis; auditory synthesis; visual analysis; and visual synthesis. Questions about reading and how each task is similar to the reading process followed.

Children were Caucasian and had at least average intelligence, average receptive and expressive language skills and adequate auditory and visual acuity. Information about each subject's handedness, eyedness and reading skills was also obtained. None of the A-I children had received speech therapy. Three additional sub-groups were tested: (1) eight black children of middle socio-economic status; (2) eight black children of low socio-economic backgrounds; and (3) eight white children enrolled in therapy for mild articulation problems.

Use of a four-way repeated measures ANOVA revealed no significant four- or three-way interactions among the research conditions, however, the two-way interactions of mode x task and mode x group reached significance. Further, the main effects of task and mode were significant.

Responses to the questions about reading were assigned to one of eight categories ranging from non-meaningful to meaningful. Analysis of these responses indicated that, in general, the phonemic awareness tasks were perceived to be new and in over half of the responses were described as different from reading. The majority of the children gave vague or irrelevant responses when asked to define reading.

Use of multiple t tests revealed that the mean number of correct responses earned by the readers were statistically higher than those of the non-readers on the auditory analysis task.

The distribution of the eight high scores on the auditory analysis and auditory synthesis tasks for the total group of sixty-four children was significantly higher than the distribution of scores of any of the sub-groups. However, when the eight lowest scores obtained by the major group were compared to those earned by the children in each sub-group, the distribution of scores of the black children of middle income was significantly higher on the auditory tasks; and the A-I children receiving therapy had a significantly higher distribution of scores on the auditory analysis and visual synthesis tasks. The children enrolled in therapy had a significantly higher distribution of scores on the auditory analysis and visual synthesis tasks than the eight lowest scores of the A-I subjects not receiving therapy.

Chi-square tests did not reveal any significant difference for the normal and A-I subjects on individual items on each of the tasks.

Correlations were uniformly low between the tasks.

The major conclusions were as follows: (1) Children with normal articulation skills perform significantly better than A-I children on tasks presented via the auditory mode. (2) Performance on tasks of phonemic awareness does not vary as a function of gender. (3) On tasks of phonemic awareness, the visual mode appears to be significantly easier than the auditory, regardless of whether the task involves analysis or synthesis. (4) Analysis tasks are easier than synthesis tasks, with the difference between tasks more pronounced in the auditory mode. (5) Four-year-olds perceive tasks of phonemic awareness as unrelated to their preschool activities and are more apt to report similarity between visual tasks and reading than between auditory tasks and reading. Four-year-olds who can provide a meaningful definition generally portray reading as a decoding process. (6) Regardless of mode of presentation, tasks which involve matching stimuli are easier than those which require the detection of a mismatch between stimuli. (7) As defined in the present study, auditory analysis, auditory synthesis, visual analysis and visual synthesis operate as independent processes.

THE EFFICACY OF LETTER CLOZE AS A PERCEPTUAL ORGANIZING TECHNIQUE

Order No. 8127244

CHAPPELL, HOLMES SAXON, Ed.D. *University of Arkansas*, 1981. 190pp. Major Professor: Irvin L. Ramsey

Purpose. The purpose of this study was to investigate the efficacy of letter cloze as a technique for organizing the perception of words.

The following questions were considered: (1) Is letter cloze a viable teaching technique for elementary school students? (2) Will there be a significant difference in learning, utilizing letter cloze, between second graders, fourth graders, and sixth graders? (3) Will there be a significant difference in learning, utilizing letter cloze, between students' ability grouped as above average, average, and below average? (4) Will there be a significant difference in learning, utilizing letter cloze, between boys and girls?

Procedure and Design. The data were collected from one hundred forty-one students, grades two, four, and six, attending a northwest Arkansas public school during the Spring of 1980.

Experimental students, (N = 68), received letter cloze exercises for four days. The control students, (N = 73), received word lists to study.

The variables evaluation, pretest, posttest and gain were compared utilizing the t-test for independent means.

Findings. The major findings of the study were these: (1) There was no significant difference in learning, as measured by pretest and posttest scores, for the total population of the study. (2) For the experimental group there was no significant difference in learning, as measured by pretest and posttest scores, between the sixth grade, fourth grade, and second grade. (3) For the control group there was a significant difference in learning, as measured by pretest and posttest scores, between the second and fourth grades and between the second and sixth grades but no significant difference between the fourth grade and sixth grade. (4) For the experimental group there was a significant difference in learning, as measured by pretest and posttest scores, between students grouped as above average, average, and below average. (5) For the control group there was a significant difference in learning, as measured by pretest and posttest scores, between students grouped below average and average and between students grouped below average and above average but no significant difference between students grouped average and above average. (6) For the experimental group there was no significant difference in learning, as measured by pretest and posttest scores, between girls and boys. (7) For the control group there was a significant difference in learning, as measured by pretest and posttest scores, between girls and boys with the girls learning significantly more than the boys.

Conclusions. It was concluded that the letter cloze technique was as effective as, but not more effective than, those methods utilized by the control students.

THE RELATIONSHIPS BETWEEN AUDITORY PROCESSING, ORAL LANGUAGE AND READING IN A GROUP OF THIRD-GRADE CHILDREN

Order No. 8127571

COLEMAN, GERRY WATSON, Ph.D. *University of Illinois at Urbana-Champaign*, 1981. 119pp.

The present investigation was concerned with examining the relationships and differences among the following factors in 25 good and 25 poor readers in the third grade: oral language as indicated by analysis of language samples using *Developmental Sentence Scoring* procedures, and auditory processing as indicated by the *Flowers-Costello Tests of Central Auditory Abilities*.

The subjects were 50 normal children, ages 8;0 to 8;9, who attended an elementary school in Champaign-Urbana or Spartanburg, South Carolina. Each subject was characterized by the following criteria: (a) had hearing within normal limits; (b) received receptive vocabulary scores between 90 and 116 on the *Peabody Picture Vocabulary Test* (PPVT); (c) were identified and grouped as good and poor readers on the basis of their performance on the *Stanford Diagnostic Reading Test*; and (d) demonstrated sufficient visual capabilities by passing the practice items on the reading test and picture vocabulary test. Children were tested individually and those who met the above criteria were then administered two tests used for comparing their performance: Lee's (1974) *Developmental Sentence Scoring* (DSS) procedures, and the *Flowers-Costello Tests of Central Auditory Abilities*. The data were then subjected to statistical analyses employing the Pearson Product-Moment Correlation Coefficient procedure to investigate relationships, and t-test analyses to investigate differences.

The Pearson Product-Moment Correlation Coefficient analysis resulted in correlations that indicated no significant relationship was shown between the children's oral language scores and the *Flowers-Costello Tests of Central Auditory Abilities*. Results of t-test analysis revealed that the two reading groups were significantly different on the DSS procedures, but not on the test of auditory processing.

When the children's PPVT scores were correlated with the reading scores, a significant relationship was found for the total sample, but not for either of the two sub-groups, the good and poor readers. Results also revealed: (a) a significant difference between good and poor readers performance on the PPVT. (b) no significant relationship was shown between PPVT scores and oral language scores for the total group or the two sub-groups, and (c) no

significant relationship was revealed between the total group or the two sub-groups' performance on the PPVT and on the *Flowers-Costello Tests of Central Auditory Abilities*.

The data obtained in the present study seem to suggest for future research the following concerns: (a) development of a better theoretical model of auditory processing; and (b) utilization of a measure that better evaluates several other aspects of auditory processing.

THE DEVELOPMENT OF A FREIRE-BASED LITERACY/CONSCIENTIZATION PROGRAM FOR LOW-LITERATE WOMEN IN PRISON

Order No. 8112793

CRAIG, GILLIAN MARY, Ph.D. *The Pennsylvania State University*, 1981. 326pp. Adviser: Mary M. Dupuis

The purpose of this study was to develop an educational program designed specifically for a group of women in a state prison. The program used as its model that of Paulo Freire, the Brazilian educator-philosopher who developed for illiterate peasants or *campesinos* a program that dealt with the technical skills of reading and writing. In addition, the program worked with the people, not for them, for the development of conscientization, a word which Freire uses to describe the step beyond consciousness raising into action. This is a pedagogy which empowers the learners to be active participants in their lives, to act out of a critical consciousness, able to think and responsible to act. For Freire the opposite to a critical consciousness is a magic one, the state in which one passively accepts the things that happen.

The literacy/conscientization program was designed for a group of 24 women in Huron Valley Women's Facility, Michigan, reading at or below Grade 6 level according to institutionally administered standardized tests. Freire and his workers spent up to six months to discover the concerns and interests of the *campesinos*, and also their language. Given the restrictions of a prison setting, this was not possible. Instead the decision was made to utilize a semi-structured interview format to develop an understanding of the women. In order to develop an interview that would speak to at least some of the concerns of incarcerated women, the literature on women in confinement was reviewed. A parallel exists between the outlook of poor women who will be branded on release as ex-offenders and the Brazilian peasants for which Freire initially developed his program, in that both groups are marginalized from participation in the larger society.

As far as possible given institutional parameters, the atmosphere maintained during the interviews was nonjudgmental and the women were asked to share their feelings as well as demographic data. From these tape-recorded interviews, 11 themes were selected as those which arose most frequently and with emotional content for this group. They were (1) children, (2) self-image, (3) violence, (4) reactions to prison, (5) mother/daughter relationship, (6) responsibility, (7) problems as an ex-offender, (8) education, (9) friendship, (10) homosexual relationships, and (11) race. Using the Freire model described in *Education for a Critical Consciousness* (1974), these were deemed the generative themes for these women.

The final stage in the model as Freire outlines it is the development of codifications, the images to be used to draw the women into discussion initially about a reality other than their own and then into their own. From these discussions the women might learn that others share their concerns and from this draw forth the strength to move beyond. The two principal codifications suggested in the agenda were for colored girls who have considered suicide when the rainbow is empty by Ntozake Shange and "Prisoner: Cellblock 'H'" (Grundy Television). A list of additional resources for codifications comprising films, records, television programs, photographs, fiction and nonfiction, and poetry was included, too.

THE EFFECT OF DIFFERENTIAL FEATURE TRAINING ON THE USE OF GRAPHIC CUES IN CONNECTED DISCOURSE AND ON WORD RECOGNITION IN LISTS AMONG IMPULSIVE AND NONIMPULSIVE FIRST GRADERS

Order No. 8123883

CULLEN-BENDER, PATRICIA ANN, Ph.D. *Syracuse University*, 1981. 170pp.

Blumenthal, in an examination of oral reading errors (1970, 1971), found that the rapidly progressing children in the first grades he studied were, by the middle of the year, demonstrating reading behavior that was characterized by errors which reflected use of graphic cues. Poorer readers in the middle of first grade

demonstrated oral reading errors where contextual cues dominated. Attention to graphic features seemed to separate the most from the least successful first-grade readers (Barr, 1975b; Biemiller, 1970; Clay, 1967).

A large body of research suggests that children are less accurate in their visual matching responses as a result of individual variation on the cognitive dimension known as conceptual tempo (Kagan, 1964; Zelniker and Jeffrey, 1976). Correlational investigations reveal that those children classified as impulsive on a measure of conceptual tempo perform less well on school-related tasks than do children characterized as reflective. Zelniker and Oppenheimer (1973) found that a training procedure which required subjects to note the features which differentiate one stimulus from another facilitated performance on a discrimination task and modified impulsivity. The present study was conducted to determine if middle-of-the-year first grade context users' attention to features which differentiate one graphic stimulus from another would: (1) increase use of graphic cues within connected discourse, (2) improve accuracy in recognizing words out of context, (3) modify the conceptual tempo of context users characterized as impulsive.

To identify those children whose predominant strategy was context cueing, oral reading passages were administered. Trained examiners wrote down any deviation from the text as the subject read. Errors were classified as to type, using the criteria for classification of oral reading errors outlined by Biemiller (1970, 1971). Context users were then identified as displaying either an impulsive or nonimpulsive conceptual tempo by their latency and error scores on the *Matching Familiar Figures* test (MFF) (Kagan, 1963). A table of random numbers was used to assign impulsives, first, then nonimpulsives to either a treatment or control condition. The subjects in the treatment group received training (following Zelniker and Oppenheimer, 1973) for thirty minutes a day over a twenty-day period. The control subjects had children's stories read to them. Statistical comparisons were for sixteen subjects in the treatment group, fourteen subjects in the control group.

Each of the research hypotheses posed was tested using a repeated measures ANOVA. The statistical model was for one between subjects and one within-subject factor. The between-subjects factor had two levels corresponding to the two groups, treatment and control. The within-subject factor represented the time of testing (Time 1, Time 2) associated with each of the following measures: word recognition strategy (the Biemiller weighted score), word recognition accuracy (the *Wide Range Achievement Test*), and conceptual tempo (the *Matching Familiar Figures* test).

Within the context of the limitations of this study, findings and conclusions are as follows: (1) The training conditions did not promote reliance on graphic cue use beyond that which results from daily classroom instruction or maturation. Biemiller's suggestion that removing context cues from first graders whose word recognition strategy is predominantly contextual cueing, and training those subjects to focus on graphic features would result in an increase in graphic cue use when reading connected discourse, was not supported by the present results. (2) Performance on the word recognition measure was significantly higher for treatment subjects than for control subjects. This finding lends support to the view that drawing a subject's attention to visual details that differentiate one stimulus from another would increase word recognition accuracy (Gibson, 1960). (3) Training did not significantly modify impulsivity. Implications and suggestions for further research were presented.

VERBAL PLURALITY AND ASPECT Order No. 8124052

CUSIC, DAVID DOWELL, Ph.D. *Stanford University*, 1981. 385pp.

The purpose of this study is to show that multiple events, incomplete and complete action, and duration are all facets of a single general system of expressing quantitative relationships in the domain of action, and that aspect, tense, nominal plurality and event structures are all components of this same system.

The study first explores some of the basic concepts of tense and aspect, restating them in terms of quantity and plurality. It develops a notion of boundedness to relate the mass/count distinction in noun phrases to verbal concepts and time reference, showing that aspect and tense depend on the boundedness of events, and that plurality of events involves unboundedness at the phase, event or occasion levels in a situation.

The study then offers evidence, from a large sample of languages, of the broad range of plural meanings involved in event plurality and develops a four-fold classification of the conceptual domain of verbal plurality. The way plurality in subject and object noun phrases is implied by verbal plurality supports the claim that there are different

basic grammatical structures corresponding to events in transitive and intransitive clauses, but that transitivity is a gradient property, related to ergativity, which is affected by massness, plurality and agentivity in subject and object noun phrases.

The ramifications of this view of event plurality are then explored in detailed descriptive studies of several languages: Diegueño, Pomo, Moru-Madi, Klamath, and English. These studies show that singularity and multiplicity of phases, events and occasions are more useful analytical concepts than the usual perfective/imperfective and durative/non-durative categories of aspect. The study of English pays particular attention to adverbial expressions of event plurality such as AGAIN; event plurality in the Vendler verb phrase classification; the Progressive; and the temporal connectives WHEN, WHILE and AS.

The language studies demonstrate that: (a) mass-quantifying devices pluralize events internally; (b) count-quantifying devices pluralize events and occasions externally; (c) noun phrase plurality is a part of event plurality; (d) noun phrases belong to a basic event unit which depends on the degree of transitivity and source- or goal-orientation; (e) durativity is a by-product of event plurality; (f) boundedness or unboundedness of events is a crucial element in the ordering of events by tense and aspect.

The results obtained from this study are particularly relevant to the investigation of language universals in the areas of plurality and time reference, and will also be of use in the development of a semantics for plurality and aspect in individual languages.

ON THE EVOLUTION OF BRAIN LATERALIZATION AND ITS IMPLICATIONS FOR LANGUAGE Order No. 8124876

DUNAFIN, JATTIS, JANET CECILE, Ph.D. *Northwestern University*, 1981. 372pp.

This dissertation reviews the literature on the evolution of brain lateralization for speech and language. The investigation of functional and structural brain lateralization lends special insight into how and why humans evolved the capacity for language, and how this condition corresponds to that found in non-human species. The present-day manifestation of brain lateralization was discussed. The evolutionary and genetic relationship between the two major fields of functional lateralization, handedness and cognitive dominance, was considered. The underlying structural mechanisms and the developmental basis of brain lateralization were also investigated.

Results indicate that though human brain lateralization is a species-specific adaptation, it is best viewed on a phylogenetic continuum: the embellishments occurred upon an earlier-established plan. Bilateral symmetry, as well as asymmetry, plays an important role in an animal's spatial orientation within its *Umwelt*. Increasing complexity in the "perceived" world is accompanied by the evolution of greater complexity of the neural mechanisms for orienting in it. In non-human primates, this spatial orienting function has extended into a social sphere, as an adaptation to increased complexity in *Umwelt*, including in the mechanisms from the processing of auditory communication signals. The pattern is further embellished in humans, who live in a highly complex and unpredictable *Umwelt*. Brain asymmetry serves a number of adaptive functions, including in spatial orientation; in increasing the efficiency of cortical activity, through a central-control mechanism; in "doubling" the power of the brain, by eliminating unnecessary redundancy of action, increasing the problem-solving techniques, and doubling the memory storage capabilities of the hemispheres. Brain asymmetry may also be important for symbolization, which is pivotal for language. Also noted, is the great need for more research, especially on the physical mechanisms underlying functional asymmetry, and as to its ontogenetic basis. Cross-species and cross-cultural studies are particularly encouraged.

STRUCTURE BUILDING OPERATIONS AND WORD ORDER

Order No. 8117994

FLYNN, MICHAEL JAMES, Ph.D. *University of Massachusetts*, 1981. 142pp.
Director: Professor Barbara Hall Partee

One of the goals of linguistic theory is to discover generalizations about the syntax and semantics of natural languages, and to construct theories of human cognitive capacity and development that explain these generalizations. Each statement about a language is theory-laden, that is, the characterizations of a possible generalization are determined by a theory (regardless of whether or not it is explicit) about the nature of

human language. Further, statements about a particular language carry varying degrees of theoretical commitment. Compare the statements in (1) and (2):

(1) The basic word order in English is such that the object noun phrase follows the verb, while in Hopi, the object noun phrase precedes the verb.

(2) English has a rule to expand the VP node which has as a special case: $VP \rightarrow V NP$; whereas the corresponding rule in Hopi has as a special case: $VP \rightarrow NP V$.

Though, in a sense, the method for checking both (1) and (2) is the same, (2) presupposes a claim that (1) does not: the incorporation of context-free phrase structure rules (PS rules) will lead to a revealing theory about how humans acquire the languages they do.

However, if PS grammars are adopted as a component of the representation of the knowledge (or belief system) humans acquire in this domain, as was a natural assumption in the early days of generative grammar, we require some theory about these rules from which generalizations stated in terms of them follow.

For example, alongside (1) and (2) consider (3) and (4):

(3) English is a prepositional language; Hopi is postpositional.

(4) English has (a subcase of) a rule: $PP \rightarrow P NP$; for Hopi: $PP \rightarrow NP P$.

As Greenberg (1963) noticed, statements like (1) and (3) are not unrelated. In fact, with much greater frequency than chance, (5) and (6) hold:

(5) If a language has VO order, it will be prepositional.

(6) If a language has OV order, it will be postpositional.

In Montague grammar, there has been little attempt to account for such generalizations. This dissertation proposes a theory of syntax which shares some of the features of Montague's work, yet attempts to give a principled explanation of low-level generalizations. The first two chapters are an introduction to the theory. Montague's methodology of stating a tight connection between the syntax and semantics is embraced and some of his technical apparatus is borrowed. Some ways in which the theory differs from common practice in Montague grammar are in (7).

(7) Phrase structure rules are discarded entirely.

Given category assignments to lexical items, hierarchical organization of phrases is defined universally.

For languages with strict word order, left-to-right ordering of constituents of phrases is specified by a language-particular word order convention, which by its very nature is cross categorial.

Chapters three and four extend and elaborate on the proposal in the first two chapters. A "wrap" convention is introduced for discontinuous constituents, as are category changing and relating rules which account for nominalizations and the double role played by adjectives in English. In the fifth and final chapter, word order conventions for other languages (Hopi among them) are adduced, and the first steps toward a theory of ordering conventions are taken.

The goal of the dissertation is to offer support for the view that while (1) and (3) are generalizations about the languages in question, (2) and (4) are not. Thus the focus of interest shifts away from a theory which explains how children acquire a set of PS rules to one which must explain how they acquire word order conventions.

INDIVIDUAL DIFFERENCES IN ACQUISITION AND USE OF ENGLISH DERIVATIONAL MORPHOLOGY Order No. 8127023

FREYD, PAMELA PARKER, Ph.D. University of Pennsylvania, 1981.
209pp. Supervisor: Dr. Lila Gleitman

Classroom observation together with evidence from the literature indicated that knowledge and use of English derivational morphology might be possible factors of differences in reading and vocabulary ability in school children. Several experiments are described.

Knowledge of endings was tested in a production task in which subjects in grades three to eight were asked to supply real endings to novel bases in a contextual situation. Results indicated that frequency and variety of derivational endings increased with age, although there was much individual variation. Productive use of derivational endings appeared to begin at fourth-grade, although younger children were observed to change lexical category using zero derivation or compounding. The first morphologically complex words to be used in a derivational function tended to be those which also had syntactic use.

A series of experiments designed to see if knowledge of derivational relations is a factor distinguishing top and average word learners matched fast learning fifth-graders with average learning eighth-graders. A paired-associate learning task using nonsense bases with derived endings indicated that the fast fifth-graders relied on derivational knowledge, but the average eighth-graders did not. A vocabulary test in which derived and simple words were matched on the basis of frequency showed the fifth-graders as better word learners in general, but differentially better with derived words. A

training experiment with eighth-graders was hopeful but inconclusive that specific training in derivational endings would increase vocabulary ability.

A lexical decision experiment using words segmented to influence the way they were retrieved was designed to examine whether use of derivational relations was a factor distinguishing better readers from average readers. The results showed that average students appeared to use morphological analysis in word recognition but top readers did not. This was attributed to the fact that top readers were probably better users of spelling-sound rules for word recognition. Because results were obtained only with word boundary items and not with morpheme boundary items, acquisition in the sense of lexical storage and retrieval is thought to be on a principled basis.

A DEVELOPMENTAL STUDY OF RECOGNITION SPAN, PARAFOVEAL WORD RECOGNITION, AND ORTHOGRAPHIC KNOWLEDGE

Order No. 8125482

GELATT, ROBERTA KAPLAN, Ed.D. Harvard University, 1981. 115pp.

During fluent reading the eyes of the reader make a series of brief left-to-right movements across a line of print. The eyes stop after each movement making a pause called a fixation. The larger the span of information that a reader can perceive and comprehend during each fixation, the fewer the number of fixations required to read a line of print. Proficient readers have large spans, and to develop them may take as many as twelve school grades.

This study investigates development of the recognition span, or average span of information perceived between consecutive fixations, in relation to two factors hypothesized to be important to the span's growth: Parafoveal word recognition and orthographic knowledge. Parafoveal word recognition refers to the ability to recognize words in the parafovea, the region to the left or right of the fovea, the small central region of clear vision. Orthographic knowledge refers to a reader's understanding of the letter combinations and sequences permissible in English words.

Measurements were made of the recognition spans of skilled and less skilled third graders and fifth graders and skilled eleventh graders. Performance on the recognition span task was compared with performance on a parafoveal word recognition task and an orthographic knowledge task.

For the recognition span task students read a short passage while a television camera recorded their fixations. (Spans were the number of words in the text divided by the total number of fixations.) For the parafoveal word recognition task, students identified high frequency words presented at central fixation and at two locations each to the left and right of center. Percentage of words correctly identified at each presentation location was determined. For the orthographic knowledge task readers identified letter strings with fourth-order approximations to English (highly predictable sequences) and zero-order approximations (unrelated letters) presented at central fixation. Individual presentation times for fourth-order strings and percent correct on the zero-order letter strings were determined.

As hypothesized, mean recognition span increased significantly with grade. Third graders' spans were less than one word per fixation, fifth graders' spans were approximately one word per fixation, and eleventh graders' spans were greater than one word per fixation. Spans of skilled readers were significantly greater than those of less skilled readers. The profiles of less skilled third graders were characterized by a high number of regressions and these persisted in the profiles of less skilled fifth graders.

Parafoveal word recognition showed a significant increase with grade and reading ability. A significant interaction between grade and reading ability was attributed to scores on words presented to the left of central fixation. For all grades and reading abilities, right parafoveal word recognition skill was superior to left. Comparisons of skilled and less skilled readers suggested that during third grade, parafoveal word recognition skills develop in both the right and left parafoveas,

in fifth grade development proceeds primarily in the right parafovea, and in eleventh grade improvement again occurs in the left parafovea.

For the orthographic knowledge task, presentation time significantly decreased with grade and reading ability. Both effects were attributable to the long presentation times of less skilled third graders. The results suggested that orthographic knowledge and its influence on single-syllable word recognition are fully developed by the third grade. A significant increase with grade on the zero-order strings suggested that improvement in letter recognition independent of word structure continues to improve until at least the eleventh grade.

The hypothesis that parafoveal word recognition and orthographic knowledge are important factors in the development of the recognition span was confirmed.

CHILDREN'S HUMOROUS LANGUAGE: A CURRICULUM FOR DEVELOPING MASTERY OF VERBAL SKILLS Order No. 8115517

GELLER, LINDA STALLMAN GIBSON, Ed.D. *New York University*, 1981. 304pp. Chairperson: Professor Frances Minor

The purposes of this project are as follows: (1) to investigate and define relationships among aspects of the elementary child's language development, the nature of word sounds and meanings and children's humorous verbal play, and (2) to construct curricula guidelines for teachers of five to eleven year olds for eliciting language play in the classroom.

Procedures are described below. First, the writer reviewed the nature of humor and language and the ontogenetic development of each as they are expressed in elementary youngster's humorous language. This was accomplished through an interdisciplinary search of material drawn from psychology, linguistics, literary criticism and education. The theoretical material provided evidence of general patterns of appreciation of humorous language in the 5-11 age range. Humor as incongruity is appreciated by the younger ages (5-7's) in presentations of perceptual or experiential inconsistencies. These examples may be visually represented (elephants on roller skates) or linguistically represented (Dogs meow/ And cats bow-wow). Also these ages appreciate verbal productions which have discernible patterns of sound (nursery rhymes, chants, etc.). The appreciation of incongruities in the later years (8-11's) expands to include the violation of logical relations. In their verbal play, these ages turn their attention to a scrutiny of linguistic structures which permit the same phonetic sequence to allow for multiple interpretations. Basically, they explore instances of homophony (What is black and white and red/read all over? A newspaper) and polysemy (What has an eye but cannot see? A needle, potato, etc.)

Secondly, the providing of opportunities for play in elementary classrooms permit an exploration of verbal play from two additional perspectives: (1) a comparison of data derived from the theoretical material with data gathered in classroom settings and (2) the analysis of ways in which classroom methods and structures can be utilized in explorations of verbal play. Basically, youngsters in the 6-11 age range were offered two types of opportunities for play: (1) Play with ambiguities derived from homophonic and polysemous structures in language, i.e., literal interpretation of figurative expressions, and (2) play with the creation of parodies through the transposition of labels/titles of products, TV shows, books, i.e., "Eveready Batteries" transposed to "Neveready Batteries." The children's responses to each type of play were evaluated in terms of adequacy of play and subjected to quantitative as well as qualitative analysis. The younger and older children exhibited marked differences in their responses to the creation of examples of these types of play. Generally, the 8-11 year olds created adequate examples while the 6-7's were only able to "approximate" these types of play rather than to create examples in response to these opportunities. On the whole, these findings substituted the data gathered in the theoretical review.

Finally, the writer constructed a set of curricula guidelines for aiding teachers in integrating appropriate verbal play opportunities into their language programs. Because, in fact, the guidelines are meant to help teachers develop their own problems, their strength derives in large part from their juxtaposition to the theoretical and research descriptions of the nature of word symbols and the stages of humor appreciation and language development in the elementary ages. An understanding of these areas is what will make it possible for teachers to transpose the opportunities for play in the guidelines in ways which are best suited to the character of their particular class groups.

A STUDY OF INTERACTION TECHNIQUES TO FACILITATE LANGUAGE DEVELOPMENT AMONG PRE-SCHOOL CHILDREN

Order No. 8126507

HAF, JAMES JOSEPH, Ph.D. *Michigan State University*, 1981. 169pp.

Language development and competence in language usage is a critical dimension of early childhood competence. Although many early childhood programs incorporate language development components, much of the research reports either the results of didactic, pattern drill forms of language development techniques, or the more casual, undocumented approach to language development of whole-child programs. None of the programs reviewed for this study seemed as effective as they might be.

The purpose of this investigation was to compare the effects of two specific adult-child interaction patterns in small group settings. For purposes of this research, a Language Interaction Model was developed, presented and tested.

Audio Tapes and Observational Data were collected over a five-week period. Subjects were 24 three to three and one half year old children attending a day care facility in a lower socio-economic neighborhood randomly selected to be in one of two grouping

conditions: those exposed to language interaction techniques and those exposed to more traditional techniques. The program consisted of half hour sessions four days each week for five weeks.

There were three categories of dependent variables. Child Language Type consisting of the number of children initiated communications, the number of responses for the complexity of these communications.

Child Language Style consisting of the number of direct or interaction types of communications used by the subjects.

Child Affective Variables consisting of measures on variables defined as enthusiastic, happy, unhappy, and negative affective display.

Significant differences were expected on the following: (1) More unsolicited Initiations and Complex Initiations by treatment subjects than by control subjects. (2) More use of interaction types of language (i.e., reflections, interpretations, new ideas/uses, etc.) by treatment subjects than by control subjects. (3) More displays of positive affect by treatment subjects than by control subjects. (4) More Language Interaction techniques used by adults in the treatment groups than in the control groups.

A One-Way Analysis of Variance was used to test the Observational and Audio Tape data. Several significant findings surfaced in this investigation.

First, treatment subjects initiated more communications and these communications were more complex than communications by control subjects. This was a major finding in the study since it was considered important to create an environment where children were free to initiate communications with adults and other children in the group.

Second, control subjects used more responses and complex responses than treatment subjects.

Third, treatment subjects had significantly longer statements than control subjects, and openly expressed themselves in the small groups.

Fourth, treatment subjects showed more enthusiasm than control subjects because of the more relaxed atmosphere created.

Fifth, treatment group subjects received higher ratings on the Group Interaction Schedule measuring the amount of interaction with the adult and other children.

The evidence here strongly suggests that adults can create an atmosphere in which communication can easily take place and that this communication can influence positive growth in language

development. Although some variables were examined that did not show significance, enough evidence exists to warrant further investigation.

A STRUCTURAL COMPARISON OF ORAL AND WRITTEN EXPOSITORY GENRE

Order No. 8114682

HESCH, JUNE IRIS, Ph.D. *State University of New York at Buffalo*, 1981. 261pp.

The purpose of the research is to discover and to structurally compare the underlying semantic complexity of oral and written expository genre.

Part I of the dissertation presents the research design. The two-part Preliminary Investigation sought (1) to classify the varieties found in the everyday language used by representative college Freshman and the language varieties found in college rhetoric texts, grammar handbooks, and literature anthologies and (2) in these varieties to discover the presence of oral expository genre while confirming the presence of written expository genre. Expository genre is defined as expression that informs, explains relations between concepts, develops an idea, makes a point. The three-part Primary Investigation sought (1) to classify the language varieties found in a spontaneous, naturally occurring conversation and to subject the text to predication typing, (2) to classify the language varieties found in traditional, representative expository Freshman composition papers and to subject the texts to predication typing and (3) to compare oral and written predication type profiles. Predication typing requires the paraphrasing of the sentences of a text using a preselected list of predication types and paraphrasing schemata, the latter generally characterized by the form "A is in some way a function of B." The profiles, or semantic schemata, that result are categorized and analyzed to reveal the underlying semantic complexity of the discourse.

Part II of the dissertation presents the analysis of the data. The Preliminary Investigation identified four everyday language varieties (intimate, casual, consultative, formal) with expository genre operative in all and two college-text language varieties (formal, frozen) with expository genre operative in both. The Primary Investigation identified one spontaneous, oral conversation language variety (intimate) and one Freshman composition language variety (formal); expository genre is operative in both varieties. The predication type profiles were classified

using four criteria: (1) the number of predication types appearing in a profile, (2) the extent of concatenation, (3) the extent of embedding, and (4) the extent of concatenation and embedding. The analysis revealed a more complex, hierarchical system of concatenation, embedding, and combinations of concatenation and embedding is exhibited by the written text than is exhibited by the oral text.

Part III of the dissertation presents the assessment of the analysis. As noted above, the everyday language varieties of selected college Freshman differ from those varieties found in representative college texts, and the variety of language found in the spontaneous oral conversation differs from the variety found in representative Freshman compositions. These differences are examined from a sociolinguistic and pedagogic perspective. The comparison of the oral and written predication profiles underscores the significant differences in the underlying semantic complexity of the oral and written texts. Implications and/or applications of these findings for the teaching of composition are explored briefly.

PHRASE STRUCTURE, SUBCATEGORIZATION, AND TRANSFORMATIONS IN THE ENGLISH VERB PHRASE

Order No. 8115302

HOFFMAN, CRAIG WARD, Ph.D. *The University of Connecticut*, 1980. 144pp.

This thesis is an investigation of phrase structure rules, subcategorization, and transformations in the English verb phrase. Chapter 1 is an introduction in which an outline of the thesis is given. The theoretical framework assumed, the Revised Extended Standard Theory, is briefly reviewed.

Chapter 2 contains a discussion of the traditionally assumed category Prepositional Phrase. I argue that Prepositional Phrase is not a category at all and, further, that including it in a grammar of English only serves to cloud generalizations about the form and application of phrase structure rules and transformations. I will propose three independent categories—Locative Phrase, Particle, and Dative which I will argue differ significantly from each other as well as from those phrases which remain of the traditional category Prepositional Phrase.

In Chapter 3, I propose a restrictive theory of subcategorization that severely limits the number of possible subcategories predicted. I argue that the full subcategorization of verbs is divided into two steps; these are represented in two distinct levels of structure in the verb phrase.

In Chapter 4, I offer a transformational analysis of the English Dative alternation. I argue that this alternation is fully predictable and that any lexical analysis of Datives misses this significant regularity. The analysis of Datives proposed includes a rule of NP movement which I argue is also responsible for alternations traditionally discussed in terms of two independent rules of Particle Movement and Heavy NP Shift.

CATEGORIZATION IN PHONOLOGY: AN EXPERIMENTAL APPROACH

Order No. 8113081

JAEGER, JERI JUANITA, Ph.D. *University of California, Berkeley*, 1980. 423pp.

The categorization of diverse phenomena into functional or perceptual unities is a well-documented aspect of human behavior. The present work explores the internal and external structure of phonological categories in general, and develops experimental designs for performing these explorations.

In Chapter 1, three points inherent in Sapir's 'The psychological reality of phonemes' are discussed: (1) theoretical entities can reflect psychologically real linguistic structures; (2) behavioral evidence may be used to support claims about psychological reality; (3) the phoneme is a categorical entity. These assumptions point toward the use of the concept formation (CF) technique for testing claims regarding the grouping of phonetically diverse sounds into phonemes; they also suggest the usefulness of this technique for exploring other linguistic phenomena.

Chapter 2 presents Experiment 1, a classical conditioning experiment using shock/Galvanic skin response. The problem probed was whether English speaking Ss consider the various allophones of the phoneme /t/ to be 'the same sound', i.e. to belong to one speech-sound category. Ss were trained (via shock) to respond to words containing the aspirated allophone [tʰ]: when presented with words containing the unaspirated allophone, e.g. school, Ss exhibited a generalized response, giving evidence that phonemic categories exist at low levels of consciousness for these speakers.

In Chapter 3, the main components of CF experiments are discussed. A CF experiment, again exploring the phoneme /t/, is presented. Ss were trained, via visual feedback, to push buttons indicating inclusion/exclusion decisions; again they were trained on [tʰ]-words, and tested on [t]-words.

Their responses showed that this phoneme category also exists at a more volitional level of consciousness. A similar experiment, studying the phoneme /r/ in Japanese, involved the training of Japanese Ss to respond positively to words with the [r, ɽ] allophones, and then exposing them to the [ɽ] allophone. They also exhibited phoneme-like behavior. Differences in behavior among individual Ss and between English and Japanese Ss are attributed to differences in 'basic levels', and sound- vs. spelling-oriented decision-making strategies. Differences in reaction-time behavior are analyzed in some detail.

Chapter 4 presents several experiments, performed with a CF design using verbal responses. In Experiment 4, English Ss were again tested on /t/, an exhibited essentially the same behavior as before. They were also trained to form the category 'words beginning with consonant clusters'; their rejections of the affricates [tʃ] and [dʒ] showed that these are considered to be unitary segments. In Experiment 5, Ss were tested on their knowledge of English vowel shift alternations. Their responses did not support the psychological reality of the set of alternations designated by Chomsky & Halle's Vowel Shift Rule, but did support the psychological reality of the set designated by orthography. In Experiment 6, Ss formed categories based on the phonetic features [anterior], [sonorant], and [voice], and were presented with the ambiguous test segments [w], [h], and word-initial /b, d, g/ respectively. Their responses indicated that some phonetic features have psychological reality; structurally they are dimensional rather than binary; and the categorization of some segments in terms of these features is psychologically ambiguous.

In Chapter 5, the conclusion is drawn: that the CF experimental design is highly appropriate for testing linguistic questions, and it is argued that linguistic theories which are intended to be psychologically real must be able to account for the results of such experiments. Finally, the internal and external structure of linguistic categories is discussed in terms of attributes, prototypes, and basic levels; it is argued that the explanatory apparatus developed by Rosch and others to account for semantic and natural categories can also account for phonological categorizations.

UNIFIED THEORY OF THE ENGLISH SUBJUNCTIVE

Order No. 8113082

JAMES, FRANCES, Ph.D. *University of California, Berkeley*, 1980. 232pp.

My dissertation, "Unified Theory of the English Subjunctive," is a study in the semantics of mood. I argue that there is a dichotomy in the modal system of English which reflects a fundamental distinction between two ways that any representation, linguistic or otherwise, can be intended: these are (1) as a record, something which matches the states of affairs in the world, or (2) as a blueprint, something which states of affairs in the world are to match. Starting with this premise, I argue that the English subjunctive signifies the manner of representation which is comparable to a blueprint. I then give a unified account of the subjunctive's uses, showing what forms have replaced it in the history of the language and how these forms are semantically similar to it. I draw upon the philosophical grammar of James Harris and the philosophy of G. E. M. Anscombe, J. L. Austin, and John R. Searle for clarification of the dichotomy. I use Julian Boyd's analysis of accusative and infinitive constructions and his and others' analyses of modal verbs for further evidence of the dichotomy.

CHILDREN'S QUESTIONS AND THE DISCOVERY OF INTERROGATIVE SYNTAX

Order No. 8124087

JOHNSON, CAROLYN ECHOLS, Ph.D. *Stanford University*, 1981. 382pp.

This dissertation investigates how children learn to ask questions and construct interrogative sentences in English. The research consists of an observational study over a 2½-month period of eight normal children, a boy and a girl at each 6-month age intervals from 1;6 to 3;0. The children came from middle class homes where only English was spoken. Each child and his or her mother participated in six play sessions that were audio and videotaped in a livingroom setting in a television studio. All conversation from the sessions was transcribed from the audio tapes in standard orthography, and all child directives, which include questions, were transcribed in IPA. With the support of the videotapes, all the directives were coded for formal and functional features; both phonetic and pragmatic features were taken into consideration in the analysis of lexical and grammatical structures.

The results showed that children first learn wh-interrogatives as unanalyzed formulas. Once learned, these formulas are extended both semantically and structurally beyond their initially restricted contexts and gradually yield their internal structure to analysis. As this analysis takes place, the child learns the individual wh-words and the

auxiliary and copula forms that are the raw material of interrogative sentences. Only after a significant amount of analysis and learning of individual items has occurred do children appear to observe the regularities of distribution that lead to higher level generalizations about the composition and behavior of linguistic categories like wh-pronouns or AUX.

This study provides evidence for repeated reorganizations of linguistic knowledge as children learn how to construct interrogative sentences. This view is compatible with claims that phonological development proceeds from individual item learning to organization and reorganization of a more and more abstract phonological system. It is also, consistent with claims that second language learners use unanalyzed phrases as the material for analyzing the structure of the target language. The present findings demonstrate the importance of viewing language acquisition as a complex interaction of analysis and synthesis. This is compatible with current theories of cognitive development that emphasize the role of repeated reorganizations of knowledge and item-to-system learning. Finally, it offers further support to the notion that organization in language includes collocation-size units as well as smaller elements such as words and phonemes.

CASE RELATIONS IN GENERATIVE GRAMMAR

Order No. 8113457

LAWSON, JACK ODELL, Ph.D. *University of Washington*, 1981. 180pp.
Chairperson: Professor Frederick J. Newmeyer

The treatment of Case Relations in generative grammar has been surprisingly noncontroversial considering the diverse nature of Case facts. Charles Fillmore used some of these facts in the refinement of transformational grammar that he called Case Grammar. My goal is to present a more systematic account of those Case facts that bear on this issue for the purpose of showing that a Case-Grammar type account handles them better than any other account.

Given that the conventional account of Case facts assumes that Case is to be handled by an interpretive process operating on the initial phrase marker (as outlined in chapter one), chapter two shows that in fact there are several transformations or other regular grammatical processes that offer identical IPM's to the interpretive rules, thus giving the interpretive rules no way to get at the Case facts. This is the case, for example, with such sentences as "The judge married Annabelle/Annabelle was married by the judge." The active sentence is ambiguous between a reading where the judge performed the ceremony and one where the judge is the bridegroom. The passive sentence has only the first reading. It is not clear how the interpretive rules could assign both readings to the active sentence given only the PS-generated configuration. Similar arguments are presented from Dative-shift, Psych-movement and certain regular alternations between sentences with Instrument subjects.

I conclude from these arguments that Case must be encoded by some syntactic process into the IPM before the interpretive rules or the transformations may begin to operate. Chapter three develops this line of reasoning with regard to various possible generative systems and chapter four shows where in the grammar the account of Case facts is best located. The consequence of all this is that even though Case has frequently been confused with a semantic concept (roles) in the past, it is now shown to be a syntactic phenomenon with indisputably syntactic consequences.

ENGLISH WORD-MAKING

Order No. 8118546

LEDERER, RICHARD HENRY, Ph.D. *University of New Hampshire*, 1980. 272pp

English Word-Making presents the content and methods of modern research in morphology in the form of a textbook for secondary school English students.

The opening section offers a rationale for the uses of morphology at the secondary level. The emergence of English as a subject in the curriculum is traced historically; and the study of morphology is related specifically to humanistic goals and to the enhancing of skills in language analysis, speaking, reading, vocabulary growth, grammar and usage study, spelling, composition, and literary interpretation.

The main body of the text consists of ten chapters, each exploring, diachronically and synchronically, a primary category of English word-formation: compounding, reduplication, derivation, conversion, clipping, back formation, acronymy, blending, and eponymy.

Each chapter includes exercises that require students to apply what they have learned about the English language. At the end of each chapter are

extensive Notes that reinforce and expand the concepts presented in the main text.

Appendix 1 is an exposition of English spelling through a cataloguing of various phoneme-grapheme correspondences. Appendix 2 is an attempt to apply to the slang lexicon of St. Paul's School (vintage 1978) the principals of morphological analysis that are treated throughout the manuscript.

THE INTERACTIVE EFFECTS OF SYNTAX, PRAGMATICS AND TASK DIFFICULTY IN APHASIC LANGUAGE COMPREHENSION

Order No. 8113528

LESLIE, CLAUDIA MARIE, Ph.D. *Columbia University*, 1981. 147pp.

Recent work on sentence comprehension processes in aphasia has suggested that the semantic and syntactic components of linguistic competence are both functionally and neurologically independent, and that the production deficits commonly observed in anterior and posterior aphasia reflect a disruption (or restructuring) of these components, rather than an inability to access the components due to motoric, attentional or other non-linguistic processing difficulties. The present research, drawing on more holistic models of processing outlined by Jackson, Pick and others, investigated the question of whether observed syntactic deficits are the effect of interactions among the syntactic, semantic and heuristic components of the sentence comprehension process, leading to overactivation of some systems, while obstructing the utilization of other latent syntactic strategies.

Anterior and posterior aphasics, right-damaged and non-neurological subjects were tested on a group of sentences in which syntactic complexity and pragmatic difficulty (as defined by degree of plausibility and reversibility of the relation between actor and object) were systematically varied. Task difficulty was controlled by the use of both lexical and structural distractors.

It was hypothesized, in accord with the findings of previous research, that error rates on a sentence/picture matching task would increase as syntactic, pragmatic and task difficulty increased. It was further expected that the error patterns obtained for the main effects would not be entirely reflective of the relative difficulty of any given pragmatic/syntactic type, but that variation would depend on the interaction between the lexical and structural distractors and that particular sentence type.

The hypotheses for main effects and interactive effects were confirmed. It was found that the strongest factor influencing performance for both aphasics and right-damaged subjects was the type of distractor picture used, and that the difficulty of a given stimulus sentence depended on the degree to which a distractor tapped the semantic, heuristic and syntactic information offered by the stimulus sentence.

Finally, the degree to which the relation between actor and object, and the reversal of that relationship, were consistent with real world expectations proved to be a potent factor in the comprehension process, in regard to both error rate and processing time. The results suggested a two-stage model for the comprehension process in a sentence/picture matching task, wherein the first stage involves differentiating meanings and the second stage involves rejecting one of the two meanings.

RELATIONSHIPS BETWEEN THE LANGUAGE PROFICIENCY OF ADOLESCENTS AND THEIR MATHEMATICS PERFORMANCE

Order No. 8119335

MCENTIRE, MARY ELIZABETH, Ph.D. *The University of Texas at Austin*, 1981. 218pp. Supervisor: J. Lee Wiederholt

The relationships between language proficiency in listening, speaking, reading, and writing vocabulary and grammar and mathematics performance in computation, concepts, and problem solving were examined for 112 eighth grade students assigned to four ability groups in English. Two standardized instruments were utilized, the *Test of Adolescent Language* (Hammill, Brown, Larsen, & Wiederholt, 1980) which yielded 8 subtest scores and 6 composite scores, and three *SRA Achievement Series* mathematics subtests (Naslund, Thorpe, & Lefever, 1978).

Procedures. Pearson product-moment correlations produced positive coefficients ranging from .50 for speaking grammar with computation to .78 for written language with computation and with concepts. When reading was partialled from the relationships, the only coefficients to retain significance were the correlations of writing to computation or total mathematics scores. Canonical correlations resulted in two significant linear traits between the language subtests and the mathematics subtests. These traits were interpreted as: (1) the ability to recognize syntactic or structural relationships among words or mathematical symbols; and (2) the ability to utilize semantic or content features of language or mathematics. Canonical

correlations between language composite scores and mathematics subtests produced one significant linear trait interpreted as a negative relationship between spoken language and mathematical measures containing symbol language rather than word language.

A series of one-way ANOVA's, two ANCOVA's with reading as a covariate, and a series of stepwise discriminate analyses were computed to examine whether or not the measures of language proficiency and measures of mathematics performance discriminated among remedial, basic, regular, and honors English classes or among mathematics groups derived by a quartile division of the total mathematics score. Significant mean score differences were found among both language and mathematics groups for all language and mathematics measures. Reading differences among the language and mathematics groups accounted for a large portion of their variance. However, writing skills continued to differentiate the groups when reading was covaried. The discriminate analysis of language groups indicated that Reading/Vocabulary and Writing/Vocabulary subtests, the Written Language composite, and the mathematics Concepts subtest were the best discriminators of remedial English class placement. Membership in the poorest mathematics performance group was discriminated by Reading/Grammar, Writing/Vocabulary, and Speaking/Grammar subtests, and the Written Language composite score.

Results. Results indicated that language proficiency, particularly proficiency in reading, was a correlate of mathematics performance with stronger relationships to measures of computation and concepts than to problem solving. In addition, language proficiency in writing was found to have a direct positive relationship to mathematics performance beyond any commonality measured by reading. An inference was drawn that levels of mathematics performance may be more related to language proficiency in the utilization of syntactical or structural relationships between words and/or symbols than to language proficiency in semantic or content features of language.

THE INFLUENCE OF LINGUISTIC CONTEXT ON WORD RECOGNITION ACCURACY AND MISCUSES Order No. 8112886
MACAUL, SHERRY LYNN, Ph.D. Kent State University, 1980. 231pp.
Director: Dr. Carl L. Rosen

Recent models and theories of the reading process support the contention that the reading act involves use of multiple sources of information via interactive processing strategies. Graphic, syntactic, and semantic cue systems are perceived as converging simultaneously. Higher level linguistic and meaning cues seem to facilitate graphic level processing. Thus, the reading process is viewed as holistic and flexible in nature. The reader is recognized as an active participant, exercising various degrees of strategic control over the material read.

Purpose. The investigation was primarily directed toward examining the effect of condition: providing additional amounts of linguistic information (sentence and passage prose) over and above isolated word lists, on the two dependent variables word recognition accuracy and types of miscues. A subsidiary interest was to examine the differing effects of condition on accuracy and miscues committed by subjects of two reading ability groups and grade. Miscues were examined on two levels namely, the primary (independently considered graphic, grammatic, and semantic miscues) and on the combinatorial level (combined graphic, grammatic, and semantic; considering each type of complete miscue as committed).

Procedures. The current investigation sampled 61 first (27 males and 34 females) and 56 third (31 males and 25 females) graders, drawn from two parochial, elementary school populations in a suburb east of Cleveland, Ohio. The instructional program in use utilized various basal reading series which were accompanied by a developmental phonic approach to word recognition.

Individual and group testing was conducted in late May and early June of the 1978-79 school year, by reading clinicians. Two measures were administered to all subjects in this investigation. First an investigator-designed instrument consisting of three conditions, namely, Isolated Graphic (word lists), Sentences, and Passage Prose; one separate set per grade level. The instrument, was based upon a well-defined and graded word source, *The Harris-Jacobson Basic Reading Vocabulary*, (Harris & Jacobson, 1972).

The second instrument, the *Comprehensive Tests of Basic Skills*, was administered on a group basis to serve as a basis for determining reading ability groups for later analysis.

Administration of the investigator designed instrument was conducted on an individual basis. Each subject received a randomized sequence of three task conditions to read aloud into a tape recorder consecutively as cued. Examiners recorded oral reading accuracy and miscues by hand on student protocol sheets during oral reading examination sessions. Later via tapes careful coding and scoring was undertaken by investigator in

accordance with a set of systematically established and consistently-defined criteria.

Statistical Design and Analysis. A repeated measures design was followed to reduce the influence of practice effects. A three-way repeated measures ANOVA was computed for each of the two dependent variables for two between subjects factors (reading ability and grade) and one within subjects repeated measures factor (task condition). The Scheffe multiple comparison post hoc test was applied to test for significant pairwise differences.

Findings and Conclusions. For the total sample as well as for the first grade group, presentation of S and PP types of linguistic information over and above IG, served to significantly increase mean word recognition accuracy. Context served to reduce primary miscues for "undesirable types" (Dprx, SL, GU) under sentence and passage prose over isolated graphic performance. Findings were obtained which showed instances of reading behaviors supporting our interpretation of interactive processing for the total sample and the first grade group. In addition, context over isolated graphic presentation seemed to effect an increase in the single most acceptable combinatorial type miscue while serving to reduce the two most unacceptable combinatorial miscues. The findings of this study seem to be in accordance with current theory and research, hence supporting an interactive model of the reading process.

A MULTIDIMENSIONAL MAP OF THE PHONEMES OF ENGLISH: A PERCEPTUAL STUDY Order No. 8122484
MAEDA, ANN RIEKO TAKETA, Ph.D. University of Hawaii, 1981. 164pp.

The primary purpose of this dissertation was to derive the smallest set of distinctive features that best described and explained the perception of the 40 phonemes of English. It was of additional importance to determine the distances (in the n-dimensional solution) between each pair of phonemes in the stimulus set. While the intent was to identify the set of distinctive features that would describe and distinguish all of the vowel and consonant phonemes of English, it was hypothesized that, for the most part, separate feature systems would address the vowels and the consonants. Additionally, it was hypothesized that, despite the lack of a one-to-one correspondence between the articulatory, acoustic, and auditory stages of speech sound transmission, articulatory features would be compatible with the significant characteristics of phonemes that affect their perception (the auditory stage).

A reduction in the data set size was made using a cyclic design (Spence and Domoney, 1974). Thus, the 26 listener-judges initially rated the dissimilarity of 515 of the 780 phoneme pairs. Multidimensional scaling analysis of the incomplete lower half matrix, however, did not allow satisfactory interpretations for any of the dimensional solutions. Therefore, additional data were collected for the remaining 265 phonemes and analyzed. A four-dimensional solution afforded the best interpretation.

Separate feature systems were recovered to describe the vowel phonemes and the consonant phonemes. The features important to vowel perception were: tense, retroflex, diphthong, front, round, and high. The perceptual feature system derived for the consonant phonemes included the features voiced, nasal, sibilant, sonorant, plosive, fricative, glide, and liquid.

The present investigation was quite successful in identifying the distinctive features important in the perception of the 40 phonemes of English. Moreover, the results confirm that articulatory features mediate in the auditory discrimination of speech sounds. The present research also derived interphonemic distances between all phonemes in the stimulus set. Of particular importance, these data allow quantification of word similarity which can be used to facilitate instruction for persons with auditory difficulties.

GENDER BIAS IN EARLY CHILDHOOD EDUCATORS' IDENTIFICATION OF TODDLER LANGUAGE FUNCTIONS Order No. 8117454

MANN, BARBARA ANN, Ph.D. University of Missouri - Columbia, 1980. 120pp. Supervisor: Dr. Stevie Hoffman

Purpose. The focus of this study was to measure gender bias as it may have occurred when female teachers of prekindergarten, kindergarten and first-grade children identified the verbal language functions of male and female toddlers. Both appropriate and inappropriate identification of language functions were considered.

Procedures. The Language Function Identification Test (LFIT) was constructed for this study which was composed of a score sheet and 24 video clips of male and female toddlers portraying functions of language as posited by M. A. K. Halliday: instrumental, regulatory, interactional, personal, heuristic and imaginative.

The language function performances included in the LFIT were selected by 100 percent agreement between independently achieved judgments of the researcher and two experts in understanding Halliday's theory of language functions. Selection criteria were that video clip performances were representative of a language function and each function was specifically identified as one of the six language functions.

A set of training clips ensured that observers would be aware of what each function was by example prior to viewing the LFIT video clips. The 24 items of the LFIT score sheet was arranged to correspond with the presentation order of the video clips. Each of the six language functions were demonstrated twice by male toddlers and twice by female toddlers. All clips were randomly ordered with a male clip always followed by a female clip. The LFIT was administered to 34 female graduate students whose scores represented correct identification of functions 71 percent and 72 percent of the time for male and female toddlers respectively. This procedure qualified the LFIT as capable of discriminating the ability of female early childhood educators to correctly identify male and female toddler performed language functions equivalently.

The volunteer subjects of the study were 45 female teachers of prekindergarten ($N = 15$), kindergarten ($N = 15$) and first grade ($N = 15$) who were not informed of the true purpose of the study until after testing. The teachers correctly identified 71 percent and 72 percent of the male and female toddler performed functions respectively. A reliability coefficient of .82 between the correct scores of the 45 teachers and 34 graduate students indicated the LFIT's reliability to measure equivalently different female subjects.

Findings. Mean and variance comparisons of teachers' correct scores of male and female toddler language function identification failed to reach significance. However, the teachers inappropriate identification of language functions analyzed by binomial probability demonstrated greater than chance occurrence by gender in four of the six language functions: instrumental, interactional, heuristic and imaginative ($p < .05$).

Conclusions. The significant probabilities of gender by function misidentification in four of the six language functions were strong indicators of the teachers' differing inappropriate expectations for males and females. As gender bias is a condition whereby a gender is "seen" inappropriately, the evidence supported the investigator's belief that female early childhood educators would demonstrate gender bias when identifying language functions demonstrated by toddlers.

TRAIT AND PROCESS ASPECTS OF VOCABULARY KNOWLEDGE AND VERBAL ABILITY Order No. 8124107
MARSHALEK, BRACHIA, Ph.D. Stanford University, 1981. 111pp.

The purpose of this study was to investigate the construct validity of vocabulary tests and the nature of verbal ability by integrating findings and theories of cognitive psychology with those of differential psychology. The study included three kinds of measurements: an experimental faceted vocabulary test, reference ability tests, and a verbal exposure questionnaire. The faceted vocabulary test was used to study sources of difficulty in vocabulary test performance and how these sources of difficulty affect the relations between vocabulary tests and other ability measures.

The experimental task was a $3 \times 3 \times 3 \times 2$ faceted vocabulary test. The facets were word abstractness (concrete, medium, abstract), word frequency (low, medium, high), item type (vague recognition, accurate recognition, definition), and blocks (two parallel blocks). The item-type facet included two contrasts: definition vs. recognition items, and vague- vs. accurate-recognition items. The reference battery included tests of general mental ability, verbal ability, spatial ability, memory span, and closure speed. The verbal exposure questionnaire assessed frequency and time spent in reading, writing, doing homework, and viewing television. Subjects were 74 high school seniors selected to represent the bivariate distribution of verbal and spatial ability in a reference population of high school students.

The results indicated that vocabulary item difficulty increased with word abstractness, word infrequency, when item format required more precise word knowledge, and when the item required definition as opposed to recognition of the word. The results also suggested that partial concepts are prevalent in young adults and that word acquisition is a gradual process. Many words could be recognized vaguely but not accurately, or defined vaguely but not accurately, or recognized but not defined.

The following findings point to the role of reasoning processes in the acquisition or definition of words: (a) some responses indicated that subjects could give correct examples of how the word was used in sentences but inferred incorrect defining features; (b) students with low reasoning ability had major difficulties in the inference process during the definition stage; (c) the reasoning composite related to vocabulary measures at the lower end of the vocabulary distribution but not at the higher end. This suggests that a certain level of reasoning ability is necessary for effective extraction of word meaning. Above this level, reasoning ability makes little difference in performance on vocabulary tests; (d) vocabulary items that required the student to do more than merely recognize the correct meaning of a word had higher correlations with reasoning than recognition vocabulary items.

Verbal ability as represented by reading comprehension and reading vocabulary tests was best measured by frequent or medium-frequency words rather than by rare words. On the other hand, difficult recognition vocabulary tests such as advanced vocabulary tests seemed to measure mainly sources of difficulty due to infrequent words--sources that were related to individual differences in verbal exposure.

The results also suggest that students with poor verbal-sequential skills had particular difficulties with abstract words. Students with relatively little verbal exposure had particular difficulties with rare words, students with poor reasoning skills had major difficulties with definition items, and students with high spatial ability had an advantage in the acquisition or definition of concrete words. The roles of exposure and interest variables in the acquisition of vocabulary and other verbal knowledge were also discussed.

SEGMENTATION AND ANALYSIS OF PHONEMIC UNITS AS RELATED TO ACQUISITION OF THE INITIAL CONSONANT PHONEME-GRAPHEME CORRESPONDENCE Order No. 8118092
MATHEWS, BARBARA ASHER, Ph.D. North Texas State University, 1981. 105pp.

The ability of students to segment the speech stream into phonemic units and to analyze (make judgments as to same or different) beginning consonant phonemes was assessed at grades kindergarten through third from both high and low socioeconomic groups.

Segmentation ability was assessed by the use of a test of actual words in a match-to-sample task, a test of synthetic words requiring a same-different judgment and a task which required deletion of a phoneme from a known word to form a new word. Three prerequisite abilities were also assessed: auditory acuity and understanding of the concepts "same" and "different" with regard to sounds, and "beginning" with regard to sequence of sounds.

Findings indicate: (1) Approximately 30% of students from low-socioeconomic groups do not possess this ability during the years of beginning reading acquisition. (2) The ability appears to be a mastery learning task. (3) Lack of the ability appears to result in paired associative learning when the phoneme-grapheme correspondence is taught. (4) The most appropriate test of the ability for younger children requires a test of actual words while the test of older students must utilize a test of synthetic words. (5) The ability to segment speech into phonemic units is more highly correlated with achievement in reading as the demands of decoding are increased.

The implications of this study are: (1) The prerequisite concepts must be assessed and taught if necessary before the ability to segment speech is assessed or before instruction in the phoneme-grapheme correspondence is initiated. (2) It is necessary to assess the students ability to segment the speech stream into phonemic units and make analysis before instruction in the phoneme-grapheme correspondence can be initiated. (3) Placement of the phoneme-grapheme correspondence instruction in the curriculum should be different for groups with different ability. (4) Students who are unable to perform the segmentation task should be instructed by (a) an approach to beginning reading that minimizes the importance of the sound-symbol correspondence and emphasizes visual learning, (b) a method which helps these students acquire the ability, or (c) both. (5) A formative evaluation of student learning should be conducted as the phoneme-grapheme correspondence is taught so that if paired-associational learning rather than concept learning occurs, it is detected.

THE DEVELOPMENT OF NARRATIVE CAPABILITIES WITHIN A SYNERGISTIC, VARIABLE PERSPECTIVE OF LANGUAGE DEVELOPMENT: AN EXAMINATION OF COHESIVE HARMONY OF STORIES PRODUCED IN THREE CONTEXTS RETELLING, DICTATING AND WRITING Order No. 8115145

PAPPAS, CHRISTINE CONLEY, Ph.D. *The Ohio State University*, 1981. 151pp. Adviser: Professor Victor M. Reine.

Much of recent research exploring children's developing narrative competence can be characterized in two general ways: (1) it has been cross-sectional research looking at either retellings or spontaneous story tellings, and, (2) it has focused on story form using schemes developed from approaches whose orientation has emphasized the already expert or competent storyteller. The general finding of this research—namely, that children have acquired or learned story form by the time they enter first grade—was questioned in terms of a synergistic, variable model of language learning. The synergistic aspect of the model suggests that children do not learn form, then meaning, then use of language in an additive way, but that they learn these aspects of language simultaneously. Determinations about the form of stories produced by young children which are frequently brief, fragmentary and/or laden with ambiguous relevant items are difficult to make. Thus, a focus on form alone may have led to misleading conclusions about children's narrative capabilities. The variable aspect of the language model suggests that language learning is systematically variable, rather than categorical so that language behavior is different depending upon different circumstances. Thus, attributing general narrative capabilities to children based on stories produced in a single context may have been unwarranted.

The major aim of the present investigation was to demonstrate that the development of narrative capabilities is best understood within such a synergistic, variable model of language development. To that end, this study compared the cohesive harmony of stories produced by eleven first grade children in three contexts—retelling, dictating and writing. The cohesive harmony index, a result of a series of analyses in which lexical tokens in interactions of identity and similarity chains are computed, taps both global structure and semantic cohesive properties in stories. The data analysis employed in the study was a one-factor repeated design multivariate analysis of variance procedure (MANOVA) on this cohesive harmony index as well as five other dependent variables with context (retelling, dictating and writing) functioning as a within-subjects treatment comparison. A significant multivariate test statistic for context resulted and was followed up by univariate analyses of variance (ANOVAs) on each dependent variable and by appropriate post-hoc tests.

The overall results of the study demonstrated that the narrative capabilities displayed by the children in the study was variable depending upon the context in which the children created their stories. In terms of the magnitude of the cohesive harmony index variable, the children in the study produced the "best" stories in the retelling context and produced "better" dictated stories than written ones. Conclusions about the findings included considerations of three kinds: characteristics of the stimulus book used in the retelling context; composing factors inherent in the dictation and writing contexts; and, mechanical and orthographic concerns of the children in the writing context.

Different patterns of results for the other five dependent variables examined in the study were reported and discussed. A way to view the results of two measures—the cohesive harmony index and another index called cohesive density—in terms of *emic* and *etic* perspectives was offered.

THE EFFECTS OF PREPARATION AND INCUBATION UPON PRODUCTION OF ORIGINAL VERBAL IMAGES

Order No. 8119213

PARRISH, J. KIP, Ph.D. *Mississippi State University*, 1981. 99pp. Director: Dr. Joe Khatena

The study was based upon the theoretical concepts of preparation and incubation as they have been described in the current creativity literature. The purpose of the investigation was to determine if preparation and incubation were effective ways of enhancing creative imagination. Two levels of preparation (presence and absence) were crossed with two levels of incubation (presence and absence) in a randomized subjects, posttest only, 2 x 2 factorial design. Because the sampling and treatment administration procedures required that each of the four treatment conditions was composed of three groups, a hierarchical component was added to the research design for statistical purposes. Preparation activities consisted of

exercise in a 60-minute imagery-training program which was a modified form of the *Creative Imagination Imagery: Action Book* by Joe Khatena. Incubation activities consisted of exposure to a taped 20-minute autogenic relaxation procedure. Creative imagination was measured by the Onomatopoeia and Images test. This test assessed the degree to which original verbal responses were produced as a result of exposure to stimuli which were presented in the form of onomatopoeic words. Hypotheses were formulated in order to test the main and interaction effects of preparation and incubation.

The subjects were 72 male and female volunteers enrolled in college introductory educational psychology classes. Subjects were asked to sign up for any one of 12 2-hour time blocks, their choice of blocks presumably being random. This procedure resulted in 12 groups of from 4 to 8 subjects. Each group was randomly assigned to one of the four treatment conditions. Condition I received both the preparation and incubation procedures. Condition II received the preparation, but not the incubation procedures. Condition III received the incubation, but not the preparation procedures. Condition IV did not receive either the preparation or the incubation procedures. Other activities such as films and lectures were received by conditions II, III, and IV such that subject participation in all conditions was for approximately 100 minutes.

Initially, the data were subjected to a hierarchical analysis of variance which suggested that the group of which each subject was a member significantly influenced his/her score on the posttest. Experimental hypotheses were tested by a factorial analysis of variance for unequal cells. The factorial analysis showed the main effects of preparation and incubation to be nonsignificant, but the interaction of the two variables was significant. The results were interpreted to suggest that preparation, specifically the imagery-training exercises, was effective in enhancing creative imagination, but only when not followed by the incubation period (relaxation procedures). The incubation period (relaxation) was also found to be effective in enhancing creative imagination only when not preceded by preparation (imagery-training). The hypothesis that creative imagination is enhanced as a result of subjects receiving preparation (imagery-training) followed by incubation (relaxation) was not supported.

It was concluded from the investigation that Khatena's imagery-training procedure has great potential as a quick, effective means of stimulating creative imagination. Relaxation, by itself, was also concluded to be a procedure which might help subjects to enhance their creative imagination.

SENTENCE BRIDGING AND READING PROFICIENCY

Order No. 8118847

PHILBIN, MARGARET M., Ed.D. *Lehigh University*, 1981. 139pp.

The purpose of the study was to investigate bridging performance of third and fifth grade children. Bridging is a subprocess in reading comprehension which links a later sentence to an earlier one. For example, consider these sentences: (1) John went into the garage. (2) He admired the car's beautiful finish. Sentence 2 in this passage refers the reader back to sentence 1, and the bridge constructed is *There was a car in the garage*. The two major questions were these: first, how closely related is bridging performance to reading proficiency; and second, do different kinds of bridging require different abilities? Other questions were investigated regarding the effect of grade and sex on bridging performance and regarding the role IQ plays in the relationship between bridging performance and reading proficiency.

The sample consisted of 155 third and fifth grade students enrolled in seven classrooms during the school year 1979-80. Of the 67 fifth grade subjects included in the final sample, 31 were male and 36 were female. Of the 88 third grade subjects, 47 were males and 41 were females.

Three instruments, the Paragraph Reading subtest of the *Metropolitan Achievement Test*, the *Otis-Lennon Mental Ability Test* and a bridging test were used in the testing of hypotheses. No standardized test for bridging existed; therefore, a pool of 26 items per bridging type was constructed by the investigator and pretested to determine their indices of discrimination and overall reliability. Half of the items for each were the items with the highest indices of discrimination. It is to be noted that the bridging test was read to the subjects while the written form of the test was in front of them thus reducing the role of reading to a minimum.

Two-tailed t-tests were used in analyzing the correlation coefficients. A step-wise multiple regression equation for reading proficiency was calculated to find the predictive strengths of the bridging types and IQ. A factorial analysis of variance was performed on the bridging test data to determine the effects of grade, sex, and their interaction.

The major findings of the study were: (1) The relationship between bridging and reading was statistically significant. (2) There was no indication that different bridging types require different abilities. (3) When the effect of IQ was partialled out, the correlation between bridging performance and reading proficiency was not significant in grade 5 but was significant, for the most part, in grade 3. (4) Bridging performance is significantly affected by grade but not by sex. The interaction was not significant.

THE PROCESSING OF NATURAL LANGUAGE TEXTS: AN INTERDISCIPLINARY APPROACH

Order No. 8115458

PHILLIPS, GULER PARAN, Ph.D. *University of Houston*, 1980. 176pp.

This study deals with the subject of processing and comprehending natural language texts. Since the meaning of a text becomes possible only when the reader takes an active part in reconstructing it by means of his reader competency, the objective of this study is to determine the necessary components of the reader's communicative competence, and the extent of the active relationships among text, reader, writer, and context.

Since this study considers reading and writing to be complementary activities, and reading to be an act of communication between reader and writer, it focuses on the interaction of the components and the dynamic quality of the process. Roman Jakobson's model of an act of communication is the best tool for this kind of analysis because it is inclusive; it treats the whole act of communication as an organic whole. His model provides the basis for this study but it has been expanded to incorporate relevant insights from related fields since they help to flesh it out.

In order to test the expanded model and to focus on the very complex interaction of the components in an act of verbal communication, I have chosen to use a non-traditional text, the "Doodlesbury" cartoon strips of G. B. Trudeau because it is multi-modal—it combines linguistic, pictorial, and contextual signs very efficiently and economically.

The basis of natural language is conceptual. This conceptual content is mapped onto language by means of realization rules. These rules come from diverse categories such as syntax, semantics, and pragmatics. Human beings do not read, speak or listen in isolation. They understand what they read in linguistic, situational, and cultural contexts. Thus a model of language processing must take into account the context as well as the presuppositions and expectations of the reader and the writer. Since Jakobson's model views language as a multi-dimensional system, it has proven the best tool for investigating how a reader understands a multi-modal text. The extended model of reading discussed in this study establishes a framework in which linguistic form, semantic interpretation, and pragmatic use are integrated for a better understanding of reading.

THE EFFECT OF LABELING OBJECTS ON THE SUBSEQUENT RECOGNITION OF THOSE WORDS BY FIRST GRADE CHILDREN

Order No. 8123172

POSTON, CHARLES EDWARD, Ed.D. *The University of Tennessee*, 1981. 117pp. Major Professor: A. Montgomery Johnston

The purpose of this study was to determine the effect of labeling objects in the classroom upon the subsequent recognition of those words by first grade children. All first grade children in four schools were tested to determine those students who were unfamiliar with eight experimental words to be used as labels associated with concrete objects. Only those first grade children who were unfamiliar with the eight words were considered as possible subjects for the experiment.

The pretest-posttest control group design was used as the experimental design for this study, consisting of four experimental groups. Students were randomly assigned to one of the four groups, including the label-object group, label-only group, object-only group, and no label-no object group. Subjects in the label-object group were exposed to words (names of circus animals) used as labels associated with concrete objects (stuffed animals). Subjects in the label-only group were exposed to words used as labels not associated with concrete objects. Subjects in the object-only group were exposed to objects and words as used in the Language Experience Story. Subjects in the no label-no object group were not exposed to labels or labels associated with concrete objects; they served as the control group. All groups participated in a Language Experience Story about circus animals.

The treatment consisted of five 15-minute sessions. Each group wrote a Language Experience Story over a five-day period. Day 1 was used to arouse interest in the circus. Students were shown various circus scenes and discussed different aspects of the circus. On day 2, students discussed animals found in a circus. During day 3, students began writing a story about circus animals. Students completed the story about circus animals on day 4. On day 5, students read the completed story. Throughout the five days, the experimenter served as a guide, discussion leader, and facilitator. All students were posttested the week following the treatment.

Analyses were made of the differences in the total number of words recognized between the label-object group, label-only group, object-only group, and no label-no object group. Data were statistically analyzed by the use of a two-tailed t-test and analysis of variance to test four null hypotheses.

The hypotheses of this study were written in the null form for testing purposes only. They are: (H₀1) There will be no significant difference between the means of numbers of words used as labels recognized by first grade children in the label-object group as compared with first grade children in the no label-no object group. H₀1 was rejected. (H₀2) There will be no significant difference between the means of numbers of words used as labels recognized by first grade children in the label-only group as compared with first grade children in the no label-no object group. H₀2 was rejected. (H₀3) There will be no significant difference between the means of numbers of words used as labels recognized by first grade children in the object-only group as compared with first grade children in the no label-no object group. H₀3 was rejected. (H₀4) There will be no significant differences between the means of numbers of words used as labels recognized by first grade boys as compared with first grade girls; blacks as compared with whites; low socioeconomic levels as compared with high socio-economic levels; and low achievement levels as compared with high achievement levels. H₀4 was accepted.

THE EFFECTS OF THREE INSTRUCTIONAL ACTIVITIES ON CHILDREN'S CONCEPT OF WORD: A STUDY OF METALINGUISTIC AWARENESS

Order No. 8124983

PUDIS, BERNADETTE MARY, Ph.D. *Northwestern University*, 1981. 148pp.

Research has shown that young children's understandings about linguistic terms develops during their years in school and that this development appears to be influenced by the acquisition of reading and writing skills (Downing, 1969; Francis, 1973; Reid, 1966; Vygotsky, 1962). Many of the relevant studies in this area use children's verbal descriptions of linguistic terms as a measure of their metalinguistic understandings. There are, however, few direct tests of the influence of instructional tasks upon children's ability to describe linguistic units verbally.

This study was designed to investigate the effects of three school tasks upon children's ability to verbally describe one linguistic unit, the unit "word." In this study, three specific school tasks were designed and then paired with a "What is a Word?" interview in order to measure the children's verbal description of "word." In order to extend the findings of other research (Berthoud-Papandropoulou, 1978; Downing, 1973; Sulzby, 1978, 1979), the major focus of this study was upon children's discussion of the unit "word" as a semantic unit as well as a unit consisting of letters and/or sounds.

Ninety children from grades one, three and five were randomly chosen and placed into either an experimental or a control group for each grade level. Thus at each grade level there were fifteen children in the experimental group and fifteen in the control group, with each child taking part in three sessions. The experimental group at each grade level was asked to complete instructional tasks (randomly assigned) and then respond to the interview schedule with approximately one week between each task/interview session. The instructional tasks were a Directed Reading Activity (DRA), a writing activity, and a flashcard activity. The control group simply responded to the interview schedule without the instructional tasks at the same weekly interval. These repeated interviews without instructional tasks were used in order to test whether any effects would be due simply to a practice effect in answering the interview questions, than being due to the instructional tasks.

The independent variables were grade level (first, third, fifth), type of task (reading, writing, flashcard), order of task (first, second, third), and group (experimental, control). Type of task was relevant only to

the experimental group. The dependent measure was the semantic salience of the linguistic unit "word" with the dependent measure being the number of semantic explanations obtained during each interview session. Descriptive statistics and logical analysis were used to investigate the differences between the variables.

The results were interpreted as supporting the position that, as children spend more time in school, they attend more to the semantic feature of the linguistic unit "word." It was also indicated that the developmental changes in children's understanding of the unit "word" do not appear to be affected by short-term instructional tasks of the type used in this study.

The results indicated that the primary difference appeared to be due to grade level. There were no significant differences due to task or order. However, there was one group difference confined to the third grade only.

AN EXPERIMENTAL STUDY OF VERBS: THE SHAPING OF THE MEANING OF WORDS IN MESSAGES Order No. 8115150

RAY, WAYNE ALLEN, Ph.D. *The Ohio State University*, 1981. 165pp. Adviser: Professor John J. Makay

This study examines the effects of four English verb types (state, event, activity, and process) upon judgments of the meaning of words in messages. Wallace Chafe's *Meaning and the Structure of Language* postulates the primacy of the verb in the semantic relationships within a sentence. This study hypothesized that if this were the case then the verb should be judged the most important meaning word in a message. It was further hypothesized that each verb type exercises a more or less stringent semantic influence in a message. State verbs exercise the least control with event, activity, and process verbs showing more control.

The hypotheses were tested by asking 100 student subjects in the beginning speech communication class to take 16 ten word telegraph messages and rank the words from the most important meaning word to the least important. The first hypothesis was not supported. This was accounted for through the difficulty subjects had in ranking the final core message words. The second hypothesis was supported. Process verbs were more semantically powerful to focus and frame meaning in messages with the activity verbs next and the event and state verbs less effectual.

The verb operates in the basic role of shaping the ruled relations of words in expression. These rules emerge from the use of words in message expressions. Language behavior is keyed to other larger behaviors personally and societally. Research into language can disclose the keys to larger, more complex behaviors. This study suggests the examination of verbal modes to understand other larger behaviors.

THE EFFECTS OF SET EXPECTANCIES ON LEXICAL ACCESS Order No. 8119361

RIESETT, MICHAEL FRANCIS, Ph.D. *The University of Texas at Austin*, 1981. 81pp. Supervisor: Beeman N. Phillips

Most models of reading posit the existence of an internal lexicon in which the syntactic, semantic, phonologic and graphemic information for a given word is stored. According to these models, the internal lexicon must be accessed to achieve comprehension; but opinions differ regarding how this lexical access is accomplished. The phonemic encoding model holds that words are encoded using a phonemic based code, prior to lexical access. The graphemic encoding model posits that the visual features of a word are the key to lexical access. The parallel processing model holds that a word is encoded both visually and phonemically. All further processing of that word occurs in both a graphemic mode and a phonemic mode simultaneously. A word-nonword decision task to determine the relative reaction time and error rate to several stimulus types under two experimental conditions, the results of this study provide some support for the phonemic encoding model, and are consistent with a parallel processing model. Interpretation of these results indicate that the phonemic encoding model is limited in its usefulness and that a parallel processing model might well have more general applicability.

THE INFLUENCE OF LINGUISTIC GRAMMAR ON THE GRAMMAR CURRICULUM IN THE SECONDARY SCHOOL AS MEASURED BY TEXTBOOK ANALYSIS Order No. 8113336

RUSSELL, LETITIA ANN, Ed.D. *Oklahoma State University*, 1980. 89pp.

Scope and Method of Study. The present study investigated a total of 20 twelfth-grade grammar and composition textbooks from the Oklahoma State-Adopted List for a period of 12 years extending from 1967 to 1980 in order to determine the effects of linguistic theory on the teaching of grammar and composition. The twelfth-grade level was selected for study because it was assumed that the instructional elements of grammar and composition should be fully coordinated at the highest level of public school instruction. A 12 year period involving four state adoptions was established by the literature as being significant. The first adoption considered, 1967-68, was the next to follow the publication of Noam Chomsky's *Aspects of the Theory of Syntax* (1965). The books were subject to analysis of percentage coverage of 16 language items using both inferential and descriptive statistics.

Findings and Conclusions. Results of the inferential statistical analysis using the arcsine transformation showed no significant differences in the percentage emphasis on the selected language items over the 12 year period in question. The descriptive analysis was used to compare the emphasis on the selected language items both within and between subgroups:

(1) Nature of Language, (2) Structure of Language, and (3) Historical Background of the English Language. The results of these comparisons of topic coverage revealed distinctive patterns of differences between items during the four adoption periods. Since the inferential statistic used to do the trend analysis between the four adoptions was not appropriate for the subgroup comparisons, it is only possible to hypothesize about which proportions are significantly different. The analysis demonstrated some very large differences. These differences indicated an abrupt change in language-teaching textbook philosophy in the 1971-72 adoption period to accommodate the newer linguistic theories. More recently in the 1979-80 adoption period another abrupt change in the textbook contents was noted, modifying topical coverage to resemble the earliest adoption period in the study (1967-68), with two exceptions. The linguistic topics which were stressed in the 1971-72 and 1975-76 adoptions were maintained but with less coverage and composition topics have consistently gained in coverage over the past 12 years.

THE SYNTACTIC, SEMANTIC, AND PRAGMATIC ORAL LANGUAGE PRODUCTION OF NORMAL AND LEARNING DISABLED CHILDREN: A SINGLE-SUBJECT APPROACH Order No. 8125195

RUSSELL, STEVEN CHARLES, Ph.D. *The University of Michigan*, 1981. 359pp. Chairman: William M. Cruickshank

This study was designed to descriptively explore the differences in the oral language production of three children: two learning disabled children—one evidencing auditory processing/perceptual deficits and one, visual processing/perceptual deficits—and one normal child.

Subjects were male, Caucasian, native speakers of Standard American English, of the same basic socio-economic status, of average intelligence, and ranged in age from 8;8 to 9;3. Data from psycho-educational measures, school records, reports by teachers and school psychologists, medical histories, and family information, as well as ophthalmological and audiological test results were obtained in an effort to adequately describe the subjects.

Subjects were audiotaped and videotaped in conversational interaction with three partners—experimenter, peer, and mother. Transcriptions of these interactions, totalling one-and-one-half hours per subject, served as the data base for analysis to determine each subject's linguistic maturity, syntactic development, semantic encoding, semantic/syntactic encoding, and pragmatic competence in spontaneous conversational interaction.

Results, though often tentative, indicated continuum placement for subjects in each of the areas analyzed. In the areas of linguistic maturity and syntactic development, Matthew A., the learning disabled child with auditory processing deficits, appeared to be lowest, followed by Mark V., the learning disabled child with visual processing deficits, and finally, John N., the normal child. In the area of semantic/syntactic encoding, Mark V. appeared to be lowest, followed by Matthew A., and finally, John N. Finally, in the area of pragmatic competence both Matthew A. and Mark V. appeared to be lower than John N. Contrary to the results of previous studies which have been generalized to the entire population of learning disabled

children, these results suggest that auditory and visual processing deficits contribute differentially to the oral language competence of learning disabled children.

Emphasized throughout this investigation was the positive value of such a methodology as that of single-subject research in an effort to better identify and differentiate subgroups within the learning disabled population. Finally, directions for future research were discussed.

**QUANTITATIVE AND QUALITATIVE SEX-RELATED
LANGUAGE DIFFERENCES IN CHILDREN: A
SOCIOLINGUISTIC STUDY OF MALE AND FEMALE
COMMUNICATION**

Order No. 8122335

STALEY, CONSTANCE MARIE, Ph.D. *University of Colorado at Boulder*,
1981. 161pp. Directors: Assistant Professor Stephen B. Jones,
Associate Professor George A. Matter

Although scholars, explorers, and missionaries have documented sex-related language differences in exotic languages, little real evidence of such differences exists for American English. Much of available contemporary literature concerning sex-related differences in the speech of American adults has been criticized as anecdotal rather than empirical. On the other hand, a plethora of research exists on the speech of American children, although results concerning sex differences are mixed.

This study was concerned with the acquisition of sex-related language differences in children four, eight, twelve, and sixteen. Ten males and ten females per age group were interviewed using a picture description task with five miniatures of art masterpieces. In order to reduce sex bias, half of the children were interviewed by a male experimenter and half were interviewed by a female experimenter.

With regard to quantitative differences, it was hypothesized that girls would be more verbose than boys at ages four and eight and boys would be more verbose than girls at ages twelve and sixteen. Boys were found to be more verbose than girls at every age level but the sixteen year old age level, where both sexes talked an equal amount. Chi-square tests, however, revealed significance only at the four and twelve year old age levels.

A content analysis scoring system was developed to measure qualitative or stylistic differences between the language used by boys and girls. Based on research concerning both adult and child language, it was hypothesized that males would use more 'Descriptive' language and females would use more 'Interpretive-Emotive' language, 'Reflexive' language, and 'Hedges'.

Frequencies of occurrence in each of these four major language categories and their subcategories were combined and analyzed statistically using chi-square test and Tests for Significance of Difference Between Two Proportions. The latter statistical technique compared frequencies of occurrence in each major language category with total number of words spoken by boys and girls at each age level. Tests for Significance of Difference Between Two Proportions revealed significant differences in the use of 'Descriptive' language at ages eight (in favor of males) and sixteen (in favor of females); significant differences in the use of 'Interpretive-Emotive' language and 'Reflexive' language at age four (in favor of females); and no significant differences in the use of 'Hedges'.

While general sex-stereotyped expectations were demonstrated in younger children, the speech of sixteen year olds showed some reversals of the language stereotypes under investigation. Although such findings for sixteen year olds may appear anomalous, they concur with results of recent studies in speech communication reporting no differences where differences were thought to exist or unexpected differences (contrary to stereotypes) between male and female adults in a variety of communication contexts. An implication which may be drawn from this study is that sex-role stereotyping—at least in the area of language behavior—may not be as predictable as we once thought.

**THE FORMAL SEMANTICS AND PRAGMATICS OF FREE
ADJUNCTS AND ABSOLUTES IN ENGLISH**

Order No. 8121859

STUMP, GREGORY THOMAS, Ph.D. *The Ohio State University*, 1981.
400pp. Adviser: Professor David P. Dowty

The goal of this dissertation is to describe the interpretation of two constructions in English: the free adjunct and absolute constructions, exemplified in (1) and (2), respectively. (1) *Walking home*, John found a dollar. (2) *Her children asleep*, she watched television. Perhaps the most notable peculiarity of free adjuncts and absolutes is that they may function semantically like a number of different types of adverbial clauses; for example, while the adjunct in (1) intuitively serves as a temporal adverbial, that in (3) seems to function as a reason adverbial, and that in (4), as a conditional clause. (3) *Being a gardener*, John knows all about greenhouses. (4) *Wearing this outfit*, he would look much taller. Despite the absence of any overt subordinating conjunction in these sentences, users of English have no difficulty picking out the logical role of their adjuncts.

My thesis is that semantic and pragmatic factors jointly determine the relation felt to hold between a free adjunct or absolute and its superordinate clause. I argue (i) that in certain cases, a free adjunct or absolute may serve as the argument of a functional expression whose interpretation either fully determines the logical role of the adjunct/absolute or greatly limits the range of logical roles which it may be felt to play; and (ii) that when the logical role of a free adjunct or absolute is not fully determined by the interpretation of some other expression, it may nevertheless be constrained to uniqueness by the inferences of language users.

In Chapters II-V, I argue that modals and adverbs of relative frequency are best analyzed as dyadic operators; in addition, I argue that a dyadic 'generalization operator' must be postulated for the analysis of certain sorts of generic sentences. I demonstrate that an adjunct or absolute may serve as the first argument of any of these three sorts of dyadic operators, and that when it does, its logical role is fully or partially determined by the semantics of the operator. I show, however, that only certain sorts of adjuncts and absolutes can serve as arguments in this way; I conclude that the distinction between those that can and those that cannot corresponds precisely to the difference between adjuncts/absolutes with stage-level predicates and those with individual-level predicates (the stage/individual distinction being that drawn by Carlson 1977). A Montague fragment for adjuncts and absolutes is developed to elucidate these notions; included in the fragment is a new treatment of the perfect and the progressive which accounts for the semantic peculiarities of perfect adjuncts/absolutes and those deriving from present participial phrases.

In Chapter VI, I consider the means by which language users infer the logical role of a free adjunct or absolute in case it is not fully determined by the semantics of English. I discuss in turn five factors which play an important role in such inferences: the presence of a stage-level vs. an individual-level predicate in an adjunct or absolute; the relative duration of the events or states of affairs to which an adjunct/absolute and its superordinate clause relate; the order of an adjunct or absolute with respect to its superordinate clause; language users' knowledge of the world; and the presence of a 'connective adverb' in an adjunct/absolute or its superordinate clause.

Carlson, G. N. (1977) *Reference to Kinds in English*. University of Massachusetts doctoral dissertation.

**THE EFFECTS OF PICTORIAL AIDS ON INFERENTIALLY-
PRODUCED INTERFERENCE IN YOUNGER AND OLDER
CHILDREN'S SENTENCE LEARNING**

Order No. 8112570

TRUMAN, DIANE LYTTON, Ph.D. *The University of Wisconsin - Madison*,
1981. 161pp. Supervisor: Professor Joel R. Levin

This study was a continuation of a series of studies dealing with varieties of interference in sentence learning as assessed by multiple-choice tests. Methodology in these studies involved presenting to children a series of sentences and later testing recognition memory for target information with a multiple-choice test. The test included distractors from sentences variously related to sentences in which target information occurred. The basic finding in these studies was that children made more errors on multiple-choice items whose distractors appeared in sentences on the study list and shared similar

contexts with target information, compared with items whose distractors did not appear previously. The amount of interference was moderated by the study strategy used.

The object of the present study was to explore the effects of pictures on inferentially-produced interference in recognition memory for sentence information in two age groups. Younger children had a mean age of seven years, three months. Older children's mean age was eleven years, two months. There were 104 subjects at each age level.

The design consisted of two levels each of age (younger or older), strategy (no-strategy control or provided pictures), contextual relatedness of distractors and test question (related or unrelated) and item type (explicit or implicit). It was predicted that older children would spontaneously infer and thus would have similar levels of interference from implicit information and explicit information, under a control condition. Younger children were predicted not to infer spontaneously, and therefore their level of interference would be higher on explicit items compared with implicit items.

Pictures displayed all sentence information except what would later become a multiple-choice distractor. The pictures were predicted to aid learning of target information for both younger and older subjects compared to control subjects. It was also predicted that when pictures were provided, there would be no difference in interference levels between explicit and implicit items at either age level.

The major finding was that learning with pictures was significantly better than learning without pictures. The results of comparisons of overall levels of interference indicated no differences due to item type (explicit or implicit) at either age level. There was no primary evidence of interference within each item type. Possible sources producing no contextual interference in the control condition may have involved the use of various covert strategies.

Patterns of conditional old errors (the percentage of old errors among all errors) illustrated that implied information may have been a source of error for younger pictures subjects, and for both older control and pictures subjects.

TEACHING LINGUISTICS TO THE ADOLESCENT STUDENT: IMPLICATIONS FOR SECOND LANGUAGE LEARNING

Order No. 8116533

VIRGILIO, HENRY ALEXANDER, Ph.D. *Georgetown University*, 1980. 178pp.

The study tested the hypothesis that there is a statistically significant positive correlation between obtaining knowledge of linguistics and acquiring a second language.

Measurements were made between students studying a foreign language at level III and students studying linguistics (with two years previous study in French or Spanish). The investigator believed that the results of these measurements would indicate that learning a foreign language can be greatly aided by linguistic study.

The work is organized into five chapters and four appendices. Chapter one presents the problem: a traditional grammar-oriented approach is not sufficient to bring the student to a level of sophistication about the structure of language needed to handle the task of acquiring the elements of a second language.

Chapter two discusses the nature of the experimental and control groups. The experimental group was composed of fifty-seven members studying linguistics, while the control groups were made up of forty-three students studying French and forty-two studying Spanish. Information includes type of school, grade levels, age, sex, foreign language studied, verbal and non-verbal I.Q., verbal and abstract reasoning test scores. All of this data is illustrated with tables and graphs. The students in the control and experimental group are well matched in mental ability and background.

The third chapter elaborates on the procedures used in the testing and the measuring instruments. Details include: (a) linguistic aspects taught to the experimental group, (b) measuring instruments designed by the investigator, and (c) conditions under which the tests were administered. The experimental group was given formal linguistic training in phonology, morphology, and syntax--first in English, then in French and Spanish. Measurements in these three areas were made contrasting these students with traditionally trained level III students of French and Spanish.

The testing instruments, designed by the investigator, included the following:

Phonology. (two separate tests). (A) Sound recognition tests in which there were fifty items each in French and Spanish (all sound units tested could occur in either initial, medial, or final position). (B) Production of sound segments (both the experimental and control groups read from the

same sets of words and expressions). In this second test each student was handed a sheet which contained eight words in French and a combination of five single words and phrases in Spanish. Each student was asked to record the set of words and expressions placed before him.

Morphology. In this section the experimental group students were acquainted with individual parts of words, first through English, then French and Spanish. Cognates were used as a means of effecting second language vocabulary learning. The experimental group studied twenty-two prefixes and twenty-four roots. The investigator organized and constructed a cognate test in French and Spanish in which all the students had to (a) underscore the root of the word, (b) indicate the meaning of the root, and (c) give the English cognate.

Syntax. The experimental group was taught syntax through case grammar as developed by Charles J. Fillmore. The tests were set up in which three statements (sentences) were stated in different ways--usually two of them were active and one passive. Each test (French and Spanish) contained forty items.

All tests were administered under normal classroom conditions. The sound recognition tests and the syntax tests were computerized, and all the others were hand scored.

Chapter four contains a measurement analysis of all the tests administered. Forty graphs and tables illustrate the test results.

The conclusion (chapter five) contains a table and graph depicting a composite score of all the tests given. The results show the experimental students outperforming the control groups. The study suggests that linguistic knowledge is an important aspect of foreign language performance.

The appendices to the dissertation encompass all the tests administered, course curriculums written in behavioral objectives, and consonant and vowel charts referred to in the body of the work.

THE ROLE OF NOUN PHRASES AS CONTENT INDICATORS

Order No. 8123949

WALDSTEIN, ROBERT KENNETH, Ph.D. *Syracuse University*, 1981. 258pp.

This thesis is an investigation into noun phrases as content indicators and their potential role in retrieval systems. Identification of content is important at both ends of a retrieval system: for assigning content indicators to a document (indexing), and for identifying an information need from a query (user interfacing). Particular focus is placed on the relationship between syntax and index terms since they are central to the effectiveness of a retrieval system.

Two basic approaches are used in this dissertation to investigate the role of noun phrases. The first approach examines past research investigating the interaction of semantics and syntax. Evidence is drawn from psychology, linguistics, and philosophy which support the relationship between the content of English text and noun phrases. In addition, strong evidence is presented that grammatical structures, especially noun phrases, are psychologically real.

The second approach used to investigate the role of noun phrases was to test the implications for the information retrieval environment. It was found that: (1) Index phrases invariably always take the form of noun phrases, for both controlled and uncontrolled vocabulary. (2) Index phrases are closely related to the noun phrases of a document. However, this relationship varied considerably depending on database and indexing rules. (3) Intermediaries appear to use the features of a computer search system to keep the noun phrases of a need statement together as units in the retrieved documents. (4) Noun phrases were able to discriminate relevant from non-relevant documents significantly better than were just the words of retrieved documents. This was ascertained by comparing a user's written request with documents that had been judged as to their relevance.

These findings support the overall thesis concerning noun phrases as all the research questions above were answered in the expected way. However, before derived noun phrases can be used as content indicators other factors need to be considered. How a database is represented and how acceptable the representation is to a user are two important practical considerations. Investigating these aspects it was found that: (5) Noun phrases represent a database in a way comparable to present, uncontrolled index terms. Therefore, based on exhaustivity and specificity measures, noun phrases provide reasonable database encodings. (6) Users are already using indexes based on noun phrases and other derived index keys. The major examples of these are articulated indexes and free-text systems (e.g. LEXIS). This is considered evidence of user acceptance of derived phrases without the controls used in standard index vocabularies.

THE EMERGENCE OF THE MODERN CONCEPT OF CLASS IN THE ENGLISH LANGUAGE

Order No. 8114054

WALLICH, STEVEN, Ph.D. *Claremont Graduate School*, 1981. 615pp.

The Emergence of the Modern Concept of 'Class' in the English Language deals with the usage of the word "class" in the 18th and 19th centuries and focuses on the development of the modern conceptualization of social division. This thesis concentrates on a history of word preferences used to describe the social order, and explains how the term "class" came to be the most popular choice for these descriptions among authors writing between the years 1750 and 1850.

During the 18th century the preferred terms used to describe social division included the set of synonyms associated with the word "rank". These words described a world of status that was very rigid and stable. These terms placed individuals in precise locations in the social hierarchy and implied that these locations were fixed positions within the community's structure. The whole social vocabulary of the 18th century communicated the exact degree of differences between individuals in their possessions, their skills, their intellect, and their ethical natures.

The emergence of the modern concept of "class" upset this stable world of social status. The word "class" came to be associated with an elastic concept of social division that developed out of the history of political economy. As the concept of production developed, the roles played by individuals in generating goods began to identify the primary economic and social qualities of the community's structure. The ways in which political economy divided the nation, the manner in which these divisions functioned in the production of goods, and the implications these functions had upon social character and social division communicated to the word "class", previously a synonym for "rank", a completely new meaning. This meaning became the central feature in the modern conception of the social structure: "class" replaced the older vocabulary of rank as the preferred term to describe units in society.

In order to present the history of "class" and the association of this word with political economy, this thesis consists of a three-part presentation of changes in the description of social division between the years 1750-1850. The first part of the thesis concentrates on the vocabulary of "rank", in order to provide the reader with a sense of the stability and order this system of words communicated in the 18th century. This first part describes the terminology of "rank" and its synonyms from which "class" emerged; an understanding of how this older language was used helps to establish why "class" became the preferred term in the 19th century.

The second part of the thesis focuses on how the meaning of the word "class" developed within the field of political economy. This portion of the history of "class" is designed to show how the modern elastic conception of social division developed within the new field of economics. By the conclusion of this section, "class" had matured to such a degree that it effectively dominated the field of social language.

The third part of the thesis is designed to show that as political economy became the common vision in the 19th century to account for the origins of wealth, "class" gained a solid hold on the popular language of social consciousness. Modifying terms associated with "class", such as "upper", "lower", "productive", or "unproductive", established the conditions of "class-consciousness" that led to the conceptual divisions communicated by the term "class" becoming real divisions within the nation.

All three sections of this thesis are designed to convey an understanding of the emergence of the modern concept of "class" in the English language. Each section functions as a separate level in the development of this concept. Together all three parts explain how the word "class" acquired a new meaning in the 19th century and became the preferred term for social division.

GRAMMARS FOR THE RECOGNITION OF NATURAL LANGUAGE

WHEELER, ERIC STANLEY, Ph.D. *University of Toronto (Canada)*, 1980. Supervisor: Professor B. Brainerd

Unlike grammars which generate or produce samples of natural language, a recognition grammar is used for interpreting the meaning of natural language expressions. Recognition grammars are important, both as an alternative to current theoretical approaches to describing language structure, and as a necessary component in a language-comprehension system for man-machine communication.

Our current models of grammar are inadequate for use as recognition grammars. I describe several of the crucial problems facing the designer of a recognition grammar, and I show how various grammar models fail because of these crucial problems. Some models fail to accept any input at

all. Others do not provide an output, while of those that do provide a semantic output, some provide too little information and others demand more information than is available to the grammar. But the critical problem that all models face is in the mapping of the input to the output. On topological grounds, one is forced to recognize at least three distinct patterns in language and these three patterns are non-isomorphic to each other. However, the three patterns do interact in such common grammatical phenomena as English Subject-Verb Number Agreement, and Pronoun Anaphora Resolution. It is this interaction of more than two patterns in one phenomenon that our current grammatical models have not accounted for.

I propose a grammar model, called Interblock, which specifically overcomes each of the problems I discuss. It has been implemented as a computer system, described in an appendix. A complete recognition grammar of a language requires more detailed study than I could provide here; my efforts have been concentrated on the expression of participant roles in written English. In the course of developing my arguments, I propose a semantic notation which I believe represents participant roles more aptly than, say, Fillmore's case grammar system. I use the example of the verbs *hit* and *break* to illustrate this. It is against the task of specifying how a written text is to be decoded to reveal the expression of a participant's roles that I have judged both the current models of grammar and my own proposals.

Underlying this work is the concept that adequate models of language are ones that can be used as a basis for a machine simulation. Although I do not go so far as to simulate the human understanding of a text, which requires much more than just an adequate recognition grammar, I believe that using this viewpoint, I am able to demonstrate the existence of a significant portion of linguistic competence which hitherto has been unaccounted for, and to provide some account of it.

THE EFFECTS OF ORGANIZATIONAL THEMES AND ADJUNCT QUESTION PLACEMENTS ON CHILDREN'S PROSE LEARNING: A DEVELOPMENTAL PERSPECTIVE

Order No. 8125036

WHITE, RICHARD EDWARD, Ph.D. *Northwestern University*, 1981. 285pp.

Developmental changes in memory capacity and organizational development of children were studied using recall to prose material. In addition to the developmental question, two other questions were addressed: (1) What were the effects of prose organization on recall? (2) What were the effects of differential placement of adjunct questions? Passages were constructed to represent one of three organizational structures: name, attribute, random. Adjunct questions were made before, after, before & after, and neither. Each passage consisted of four paragraphs, with each paragraph describing either the type of climate, terrain, people, or government of a fictitious country.

The sample consisted of 600 children enrolled in grades 3 through 7. These children were assigned at random to one of the three passages and one of the adjunct question placements. Each child was asked to read one of three possible passages and then recall as much as he could. The recall scores were analyzed using a 3 x 4 x 5 fixed effect analysis of variance, using the three prose organizations, the four adjunct question placements, and five grade levels. There were significant main effects and a significant three-way interaction ($p < .01$). Together, with appropriate multiple comparison procedures, the interaction was identified as a specific prose organization and adjunct question placement that appeared to produce differing recall at various grade levels. The name organization with questions before & after was superior for grades 3 and 4. Children in grades 5, 6, and 7 were able to recall attribute prose and name prose better than random, with before & after adjunct question placement superior.

The results suggest that memory for prose organizations should have before & after adjunct question placements for children of different grade placements. Children's schemata for these prose organization develop at different rates, with name first and attribute somewhat later. Adjunct questions are limited by the development of a child. All three factors: organization of prose, placement of adjunct questions, and grade level have been verified as important to the recall of prose material.

A REAL-TIME PROCESS MODEL OF MORPHOLOGICAL CHANGE

Order No. 8114732

ZAGER, DAVID, PH.D. *State University of New York at Buffalo*, 1981.
158pp.

This dissertation aims at producing the rudiments of a framework in which to analyze the linguistic data of morphological change in terms of a psycholinguistic process model of language production and of language acquisition. It concentrates chiefly on examples of change where strict morphological segmentation does not predict correctly the nature of the change. As an alternative, a model is presented that allows for extensive use of whole words in morphology. It admits a combination of rote formation, classical analogy and rule-governed modification processes to account for the morphemic segments of traditional analysis.

The meat of the dissertation lies in testing two theses: (1) That morphological change arises in the production of morphology. Novel creations are possible because, in effect, speakers provide their hearers with the information that novel forms are to be categorized with well-known forms by giving an overt phonetic cue linking the novel and the well-known. (2) That, since the creative process is bound to categorization, then the observable effects of change will follow the description of the internal structure of categories.

Furthermore, using a notation that a word that is a known quantity (known whole) is a *source*; that that source is *modified*; and that the process gives rise to a *product*, I isolated source-oriented and product-oriented modifications. In a S-oriented modification, the novel product is interpreted on the basis of phonological similarities to its source; in a P-oriented modification, on the basis of phonological similarities to an established product class.

The remaining three chapters each delve into the minutiae of a single change. Chapter two concerns the nature of changes found in dialect variants of Modern Greek passive voice forms. It is found that they can be accounted for as an example of S-oriented modification.

Chapter three concerns the nature of actor markers in two-place verbs in Eskimo dialects. It is found that there is an apparently extra syllable -ti- in many forms that defies a unique synchronic description. When viewed as synchronic remnants of a sequence of historical changes in modification, all the data can be accounted for neatly, and in such a way as to allow predictions of trends in changes.

The final chapter concerns the u-preterite class of Old Spanish verbs. It is shown that, while there is no single set of (morphemic or phonological) characteristics defining the u-preterites; and no single structural relationship between present and preterite for all forms, the class still exists as a formal category. The explanation offered is that there is P-oriented modification involved, and that the structure of a given u-preterite vis-à-vis the class of u-preterites is different from, and more potent than, the structure of the same u-preterite vis-à-vis its present.

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